PUPIL TRANSPORTATION IN TEXAS

RONALD BRIGGS
KELLY HAMBY
DAVID VENHUIZEN

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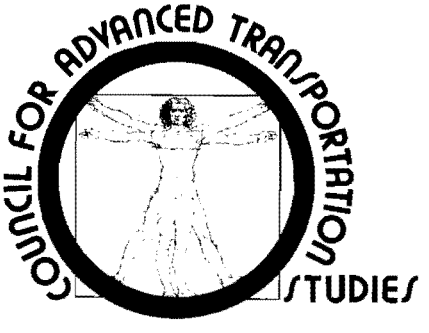

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Ronald Briggs
Kelly Hamby
David Venhuizen

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16. Abstract

System characteristics and operating costs of 331 school district transportation systems in the state of Texas are described and analyzed. This data is used to derive a model to predict the maintenance and operations costs of pupil transportation. The model takes the form of a simple log-linear equation which predicts costs per pupil transported from the linear density (pupils per route mile) of the transportation network. This model, along with procedures for estimating an annual bus replacement allowance, is incorporated into a formula for allocating state monies to local school districts for pupil transportation. This method of allocating funds is evaluated relative to existing approaches in Texas and other states, and recommendations are made for state legislation.

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EXECUTIVE SUMMARY

PROBLEM STUDIED

The research analyzes the system characteristics and operating costs of pupil transportation systems in Texas, constructs models for predicting these costs, and developes a formula for allocating state monies to local school districts for pupil transportation.

RESULTS ACHIEVED

Data Collection

A two-stage research strategy was developed. In the first stage, a sample of 22 school districts was initially selected and extensive information on pupil transportation systems operating in the 1972-1973 school year was obtained for each by personal interviews and from Pupil Transportation Reports and School District Audit Reports hald by the Texas Education Agency (TEA). This sample was later expanded to 49 districts using a mail-out questionnaire. The sample included a broad range of district sizes and types of communities served. These first stage data, referred to as the detailed sample, provide detailed information on the characteristics of pupil transportation systems, and were utilized to explore predictive models for transportation costs. In the second stage of the research a less detailed data set was obtained for 331 school districts. These data included total regular student transportation costs, average daily attendance (ADA), pupils transported daily, daily route miles travelled, number of routes operated daily, number of buses used, and the area of the school district. The cost data were obtained from TEA School District Audit Reports, and the physical data from mail-out questionnaires. The sample was chosen so that every geographical area of the state was included and the ADA distribution of the sample

matched that of the state. This data set, referred to as the expanded sample, was used to finalize and evaluate the predictive model and associated allocation formula.

Characteristics of Pupil Transportation

In Texas, no data are available on a statewide basis on the total number of pupils transported, school bus routes operated or mileages driven, or on actual expenditures for pupil transportation. Information is available only on pupils and routes eligible for state reimbursement, and for the magnitude of this reimbursement. In the 1973-1974 school year 670,000 eligible students were transported on nearly 9,000 routes with a combined mileage of almost 550,000. State reimbursements, intended for both operational and bus purchase costs, amounted to $27 million for regular transportation - approximately 23¢ per student per day, assuming a 180 day school year. In many cases, this reimbursement was considerably below actual costs since 71% of the detailed sample had operating costs alone in excess of 23¢. The overall average for this sample was 27¢ with a range from 10¢ to 96¢. Extrapolations for 1972-1973 utilizing the predictive model developed in this study suggest total statwide operations costs for regular transportation of $46.5 million, as against a state reimbursement of $26.7 million to cover both operations and bus replacement costs.

Model for Predicting Operating Costs of Pupil Transportation

The model uses cost per pupil transported as the criterion variable. School districts divided into six groups on the basis of their pupil areal density (average daily attendance divided by area of the school district in square miles). Within each group estimating equations are derived which take the form of

$$C/P = a\ LD^{b}$$

where

C/P = cost per pupil

LD = linear density (pupil transported divided by the length of the route network in miles)

a,b = parameters estimated from data in the expanded sample.

Formula for Allocating State Funds to Local School Districts

The formula comprises two main components, with separate consideration being given in each for regular as against special education (handicapped pupil) transportation. Consideration is also given to handling contracted transportation in which school districts contract with independent agencies (either transit companies or parents) to provide pupil transportation.

The two main segments of the formula provide estimates for operating costs and for bus replacement allowances. The operating cost allowance is calculated using the model discussed above. The bus replacement allowance is derived by estimating the number of buses necessary to serve the district, the expected bus life, the capacity of the buses to be funded, and the applicable bus price for each capacity range.

UTILIZATION OF RESULTS

The research provides information on the system characteristics and costs of pupil transportation in both urban and rural regions. The model allows the operating costs of pupil transportation to be predicted from readily available data, and has the potential for extension to other types of transportation systems. The formula developed in the research was incorporated into the governor's 1975 program for reorganizing the state funding of puplic education in Texas.

CONCLUSION

School bus transportation is the only type of mass transit operating in all parts of the United States today. In many rural areas it is the only form of transportation available apart from the private automobile. In many urban areas the school transportation system

FOREWORD

The Governor's Office of Educational Research and Planning of the State of Texas was established by Governor Briscoe in July of 1973. Its primary purpose was to develop a comprehensive school finance plan for Texas. Twenty areas of inquiry were identified, including school transportation. The diversity of these areas made it quite impossible, considering the limited funds and personnel available, to conduct all research in-house. Consequently, various outside resources were tapped. In the area of transportation, the Council for Advanced Transportation Studies (CATS) at The University of Texas at Austin was utilized.

In April 1973, CATS received a research grant from the U.S. Department of Transportation (DOT) entitled "Transportation to Fulfill Human Needs in a Rural-Urban Environment" (Contract No. DOT-OS-30093). Element I of this research grant, entitled "Access to Essential Services," was concerned with the accessibility of rural/urban populations to essential services, including public education. To eliminate duplication, a joint research effort was formulated between the Governor's Office and CATS. The necessary interagency contracts were executed and Mr. David Venhuizen was retained by CATS as the primary researcher, working in conjunction with Dr. Kelly Hamby of the Governor's Office and Dr. Ronald Briggs of CATS.

This publication reports results of this research effort. It contains analyses of present expenditures for pupil transportation in Texas, of the present methods used for allocating state funds to local districts for pupil transportation in both Texas and other states, and of a proposed new formula for allocation of state monies for pupil transportation in Texas. It concludes with recommendations for legislation.

ACKNOWLEDGEMENTS

We are indebted to a multitude of people who helped to make this research possible and aided in its successful completion. Space permits us to mention only a few of the foremost here. To the others, we are no less grateful.

First, our thanks to Dr. Richard L. Hooker, head of the Governor's Office of Educational Research and Planning, who was clearly cognizant of the need for this research. No less worthy of our appreciation are the members of Dr. Hooker's staff, who were always willing and eager to lend aid, slow to criticize and quick to praise.

Within the Council for Advanced Transportation Studies our particular thanks go to Dr. Mike Walton for his helpful comments at many stages in the research.

Many people are to be thanked for their efforts in assembling the data necessary to perform this study. Within the Texas Education Agency, let us personally thank Mr. Lynn Moak and his staff in School Finance - Special Projects; Mr. R.M. Cummins, Mr. Gabe Gilley, and their staff in the Transportation Division; and Mr. Woodrow Magness of the Finance Division. We would also like to thank all of the personnel in the local school districts surveyed by this study for their kind cooperation, with special recognition due those unfortunate enough to have suffered through our personal interviews. Of this group, Mr. Gayland Walker of the Austin Independent School District deserves individual mention for his continuing interest and aid throughout this project and beyond.

And last, but certainly not least appreciated, for her long and arduous efforts expended in putting this report into final form, and for her spirit of friendly cooperation throughout that effort, we express our deepest appreciation to Ms. Janette Scott of Dr. Briggs' staff.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE: BACKGROUND AND INTRODUCTION

School bus transportation is the only type of mass transit operating in all parts of the United States today. In many rural areas it is the only form of transportation available apart from the private automobile. In many urban areas the school transportation system rivals the municipal transit system in capacity, scope and budget. Despite the importance of the systems themselves, and the hints they might provide for the organization of transportation alternatives to the automobile in areas, particularly rural regions, where alternatives do not presently operate, there is a relative paucity of research on pupil transportation systems. This report examines the pupil transportation system in Texas.

The ultimate aim of the research was to design a formula for the equitable allocation of state monies to local school districts for pupil transportation. In the process data were collected on the system characteristics and operating costs of approximately one-third of the more than 1,000 school districts engaged in pupil transportation in the state. These data were used to develop a model for predicting actual pupil transportation costs by school district. Based upon this predictive model a formula was designed for the allocation of state monies to local school districts. This report analyzes the system characteristics and operating costs of pupil transportation systems in Texas, describes the models developed for predicting transportation costs, and outlines the formula developed for allocating state monies to local school districts for pupil transportation.

In the past, severe dissatisfaction has been expressed with the formula currently used by the State of Texas to distribute transportation funds to local school districts. Several questions have arisen as to the relevance in the nineteen seventies of a formula developed in 1951. Unfortunately, the amazing geographic and demographic diversity of Texas, not to mention a diversity of local decisions concerning school transportation, make equitable funding of school transportation a rather elusive goal.

After a review of the current formula, discussions with appropriate officials, and an analysis of initial data, it was concluded that the formula currently in use, based upon a "typical route" format, was insufficiently flexible to meet the varied conditions in the State of Texas, and the rapid temporal changes which characterize the seventies. It was felt that a new formula should be designed to meet five criteria:

(1) accurately reflect the actual level of costs incurred by the school districts in pupil transportation;

(2) recognize variability between school districts in costs incurred in pupil transportation;

(3) be easily adjustable to reflect temporal changes in pupil transportation costs;

(4) be capable of incorporating changes in eligibility requirements for state reimbursement of pupil transportation; and

(5) enable an equitable distribution of state funds among the districts.

The primary thrust of the research effort involved the development of a model to predict the actual transportation costs incurred by local school districts. Because Texas is large and diverse, and because information on school transportation in the state was severely lacking, a two-stage research strategy was developed. In the first stage, a sample made up of 22 school districts was selected, and detailed information on their school transportation systems was obtained by personal interviews with the responsible authority in each district. In addition to numerical data, these interviews yielded a great deal of information on the characteristics of, and problems with, operating a school transportation system. Also defined were many deficiencies of present auditing and accounting systems in yielding relevant data at both local and state levels. These first stage data, which were later expanded to 49 districts, using a mail-out questionnaire for the additional 27, were utilized to explore various models for predicting pupil transportation costs. In conjunction with other sources of information, this process yielded a rough outline of a possible formula for allocating state monies to local districts, as well as an indication of the type of data needed to finalize it. The second stage of the research obtained that data, using a mail-out questionnaire to approximately one-third of the more than 1,000 school districts engaged in

school transportation in the state. With these data in hand, the formula was finalized and evaluated.

There are four distinct categories of school transportation expenditures in Texas. First are the operating and maintenance expenditures for regular pupil transportation. Then, with somewhat different cost characteristics, there are operating and maintenance expenses for special education (handicapped) pupil transportation. The third category of expenditures is bus replacement, an expense common to both of the above systems. Finally, there is contracted transportation, which itself has two different facets--contracting with a public carrier for route operations and contracting with pupils' parents for individual transportation by automobile. Each of these categories is addressed by this research, but for reasons which will become apparent the main thrust was toward regular transportation.

In the chapters to follow, the research process is reviewed. Chapter 2 discusses data sources, data collection methods, and problems involved in data collection and interpretation. The present situation, including state expenditures for pupil transportation in Texas and total costs incurred in the districts for which detailed data was collected, is examined in Chapter 3. Information developed in Chapter 3 on the current pupil transportation system in Texas is employed in Chapter 4 to evaluate the current formula used to allocate state monies to local districts. This chapter also examines the funding methods used by other states as possible alternatives to the present system in Texas. Chapter 5 describes initial model exploration aimed at developing a new formula, and the proposed formula is developed in Chapter 6. Chapter 7 evaluates this new method of distributing funds, and Chapter 8 shows its financial impact on the state. Finally, Chapter 9 summarizes the conclusions of this research and offers recommendations for legislation to implement the new method of school transportation funds distribution in Texas.

CHAPTER TWO: DATA COLLECTION: SOURCES, METHODS AND PROBLEMS

This chapter reviews each of the data sets utilized in this study and comments upon problems of interpretation and validity. The two main data sets comprise (1) a sample of school districts (the detailed sample) for which detailed data were collected by interviews and mail-out questionnaires and (2) an expanded sample of districts for which a much more restricted variable set was obtained by mail-out questionnaires. For each of these samples additional data were obtained from the Texas Education Agency (TEA), which is the agency responsible for administering state monies expended on pupil transportation.

TEXAS EDUCATION AGENCY

Two data sets make up the bulk of the information obtained from TEA--Pupil Transportation Reports for the districts in the detailed sample, and School District Audit Reports to obtain transportation costs for districts in the expanded sample. Additionally, TEA provided various other information, including summaries of statewide information on school transportation.

A TEA Pupil Transportation Report is shown in Figure A1 of Appendix A. A great deal of information about a school transportation system is available from this document. It is submitted to TEA annually by the responsible agent for each school transportation system. For the first sample of 22 school districts, Pupil Transportation Reports were obtained for school years 1966-67, 1969-70, and 1972-73. For the remainder of the detailed sample, Pupil Transportation Reports for school year 1972-73 only were obtained.

Several problems arise in utilizing the information contained on this form. As will be apparent when the present formula is discussed in Chapter 4, this form is set up specifically to provide the information required by the present formula. The formula funds districts on a "per route" basis, so information on the system is given route-by-route, with

"eligible" and "ineligible" routes listed separately.[1] No state monies are alloted for "ineligible" routes, and details of these routes are not always rigorously reported. The mileage figures should also be treated with caution since they show only the length of bus routes, not the mileage buses are actually driven. A bus route is defined as starting at the school, running the route and returning to the school. This does not reflect the miles buses are actually driven since it allows no deadheaded mileage when buses are stored at a place other than the school building. It also leads to problems of defining a route when multiple campuses are served. Tied to this latter problem is the definition of "formula capacity". It is defined as the largest number of pupils actually on the bus at any one time. Thus, a bus route serving multiple campuses may carry far more pupils than the district is eligible to claim for that route.

Problems are also encountered when interpreting the transportation costs obtained from School District Audit Reports. Two examples of this data source are shown in Figures A2 and A3 of Appendix A. Figure A2 shows the format of an audit report for a school district utilizing the old Bulletin 613 accounting system (now phased out by TEA), and Figure A3 shows the format used by the Bulletin 679 accounting system to which some districts had already shifted in 1972-73. The total costs reported on these forms may not be an accurate reflection of local expenditures. Administration costs are often not assigned to the transportation function when these administrative functions are performed by a business manager or superintendent. Also, costs that are actually for special education or co-curricular transportation are often assigned to regular transportation.

DETAILED SAMPLE

This sample is the result of two separate data collection efforts. To avoid confusion, when referring to the 22 districts for which data collection was accomplished by personal interviews, the term "first sample"

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[1]Eligibility refers to eligibility for state reimbursement. More details on this are provided in Chapter 4.

will be used, and when referring to the entire group of 49 districts for which detailed data was collected, the term "detailed sample" will be used.

Selection of the first sample was largely to facilitate data collection. Where possible, districts within the Capital Area Planning Council region, the ten-county area surrounding and including Austin, were selected. Where appropriate districts were not available in this region, other areas of the state were tapped. A broad range of district sizes and types was desired, with district size being determined by average daily attendance (ADA) and type by the population characteristics of the community. Other investigations by the Governor's Office had recognized six categories of school districts and these were used as sample selection guidelines.[2] The six categories were

Center City--school districts in the seven major metropolitan centers of Texas: Austin, Corpus Christi, Dallas, El Paso, Fort Worth, Houston and San Antonio;

Suburban Fast Growing--districts in the suburbs of the center cities which have experienced a growth rate (measured by ADA increase) over the last 5 years of at least 25%;

Suburban Stable--suburban districts with a growth rate of less than 25% over the last 5 years;

Independent City--districts with an ADA of 10,000 or more located in cities other than the seven center cities;

Town--all school districts with an ADA of less than 10,000 which are not classified as either suburban or sparse;

Sparse--districts with a pupil areal density (ADA/square mile of district area) of less than 4.0. (Later, sparsity was redefined as a pupil areal density of less than 1.0, in accordance with the Texas Education Agency criterion for sparsity.

The first sample comprised three cities in each category with the addition of extra districts for Deep East Texas, the Lower Rio Grande Valley and Houston to ensure complete geographical coverage. The resulting 22 districts are shown in Table 1. The additional districts which made up the whole detailed sample comprised all those not included in the first sample

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[2] In addition, care was taken to insure that districts in metropolitan and non-metropolitan, rural and urban areas, as defined for the U.S. Bureau of the Census, were included.

TABLE 1. FIRST SAMPLE

Center City	Independent City
Austin	Killeen
Corpus Christi	Ector County
Houston	Tyler
Suburban Fast Growing	**Town**
Comal	Bastrop
Cypress-Fairbanks	Edinburg
Del Valle	Georgetown
Eanes	Nacogdoches
Spring Branch	San Marcos
Suburban Stable	**Sparse**
Manor	Burnet
North East (San Antonio)	Johnson City
Pasadena	Llano

which had been identified as "exemplary by the Governor's Office. Exemplary districts were those considered by educators in the state as "worthy of imitation."

It was felt that any new formula should account for the actual costs incurred by school districts in providing pupil transportation. Variables for inclusion on the questionnaires were selected with the aim of obtaining an accurate indication of costs actually incurred, together with the amount of transportation actually provided. On this preliminary analysis a wide array of data considered to be potentially useful for this purpose was sought. An initial data collection session was held with the officials responsible for running the school transportation system for the Comal Independent School District. The data collection forms to be used were revised after that meeting to better conform to school district records. The forms that finally went to the field are shown in Appendix A. Two different financial data collection forms were necessary as some schools used the old Bulletin 613 accounting system while others had already shifted to the Bulletin 679 accounting system.

The first sample data collection effort, comprising 22 school districts, encompassed three different school years in an attempt to get a feel for temporal aspects of school transportation. The years included were 1966-67, 1969-70 and 1972-73. (At that time, the 1973-74 school year was still in progress, so 1972-73 data was the latest available.) However, due to several factors (mainly doubts about the reliability of some of the data) only data from 1972-73 was analyzed in detail. Only 1972-73 data was collected from the remainder of the detailed sample, along with 1973-74 data, since the 73-74 school year was almost over when this effort was launched. The form used for this data collection is shown in Figure A7 in Appendix A.

Many problems were encountered in collecting and interpreting the data, both for the first sample and for the remainder of the detailed sample. These problems bear heavily on the reliability of the data and ultimately on the course of the research. Actual daily route mileage was perhaps the hardest data to obtain accurately. Quite often the "paper mileage"--that mileage appearing on TEA's transportation report--was not an accurate reflection of the daily route mileage actually incurred in running the transportation system. An extreme amount of time and effort was expended trying to obtain actual daily route mileages. Many districts,

however, did not keep records equal to this task, and the resulting data contains some estimate and conjecture.

Deriving the actual number of pupils transported was also sometimes difficult. Some of the districts transported ineligible pupils; since these were not reported to TEA for funding purposes, they sometimes were not accurately accounted for.

Co-curricular mileage was also often not accounted for in district records. Co-curricular mileage is mileage incurred by the school bus fleet for purposes other than normal school transportation, such as athletic team transportation and field trips. It is important to know co-curricular mileage in order to assign a correct share of maintenance costs to school transportation. Also, many districts do not account for gasoline expended on co-curricular trips separately from that expended on school transportation. A knowledge of co-curricular mileage allows gasoline costs to be split between the two functions.

Supposedly, co-curricular mileage is charged off at a locally-derived and fixed cost per mile to cover operation and maintenance expenses for these uses. This money is used to reimburse the regular and special transportation functions for this use. Note that the data collection forms are set up to accommodate this arrangement. Deriving co-curricular mileage then would be a simple matter of dividing the per mile charge rate into the total reimbursement. However, this practice is not generally adhered to. More often than not, co-curricular mileage was merely a guess.

Deriving gross gasoline cost was also difficult, aside from the problem of co-curricular use. Many districts, especially smaller ones, drew gasoline for all uses through one pump. Often, proper care was not taken into account for the amounts which went for uses other than school transportation.

Salary breakouts which were accurate reflections of the effort involved in school transportation were also a problem. This affected three areas: administrative and clerical, bus drivers, and maintenance personnel. The administrative and clerical salary sought was one which would reflect the effort actually involved in setting up and running the school transportation system, regardless of where these salaries occurred in the school district's budget. In many districts, especially the smaller ones, the superintendent or the business manager and his secretaries performed these duties. Establishing what percentage of their salaries should be assigned

to the transportation effort was often a guessing game. Even in districts which employed a full-time transportation director, the supporting clerical salaries were often not assigned to transportation.

Bus driver salaries were almost always muddled by the inclusion of salaries paid for driving on co-curricular trips. Quite often, there was no reasonable way of establishing what share of the total was assignable to school transportation, as the records on co-curricular travel were poor to non-existent. Also, as some districts paid hourly wages and some paid monthly salaries, it was very hard to compare salaries between districts. To circumvent this problem, a monthly equivalent salary was computed for the districts paying on an hourly basis. This necessitated estimating the average hours per day worked by a driver.

Maintenance salaries suffered from similar lack of resolution. Most districts had no idea what portion of maintenance salaries were assignable to repair and maintenance of the school bus fleet. However, unless a district has a large fleet of other vehicles and machines, it is probably safe to assume that the vast majority of these salaries is assignable to the school bus fleet.

EXPANDED SAMPLE

Analysis of the detailed sample indicated that a much reduced variable set would be sufficient for the expanded sample. The results demonstrated that data should be gathered which would allow the following variables to be derived:

(1) total cost
(2) cost/pupil
(3) cost/mile
(4) cost/pupil/mile
(5) linear density
(6) transported pupil areal density
(7) pupil areal density
(8) pupils transported daily
(9) daily route miles travelled
(10) number of routes run
(11) number of buses used

The cost data was obtained from TEA via the School District Audit Reports as outlined earlier. The physical data was obtained via a mail-out questionnaire (see Figure A8 in Appendix A.) All but a few of the questionnaires were returned. The physical data for districts not returning their questionnaires was obtained by consulting TEA's Pupil Transportation Reports.

The expanded sample was derived so that every area of the state was included geographically, and the ADA distribution of districts in the state was roughly matched by the ADA distribution of the sample. Both of these were accomplished by simple inspection. The final data set (which included the districts in the detailed sample) represents roughly one-third of all the districts involved in school transportation in the state, so sampling error is a minor problem. The sample is slightly biased toward higher ADA categories as compared to the entire state, but this arrangement is actually to be desired, for two reasons. Many of the very small ADA districts are not in the transportation business and more money is involved in transportation in larger ADA districts; therefore, it is in this latter arena that higher resolution is most fruitful.

The problems with the physical data in this sample are similar to those encountered in acquiring the detailed sample. The cost-related problem have also been previously discussed.

CHAPTER THREE THE CURRENT SCHOOL TRANSPORTATION SYSTEM IN TEXAS

THE STATEWIDE SYSTEM

In Texas, no data are available on a statewide basis on the total number of pupils transported, school bus routes operated or mileages driven, or on actual expenditures for pupil transportation. Information is available only on pupils and routes eligible for state reimbursement,[3] and on the magnitude of this reimbursement (Table 2). Even so, an approximate indication of the magnitude of the system under analysis is provided by this data. In the 1973-74 school year 670,000 eligible students were transported on nearly 9,000 routes with a combined mileage of almost 550,000. State reimbursements amounted to $27 million for regular transportation - approximately 23¢ per student per day, assuming a 180-day school year. An additional three million dollars was allocated for special education transportation - a flat grant of $150 per student per annum or 83¢ per day. Table 3, which exhibits annual percentage changes for the data in Table 2, shows that the system is growing both in the number of pupils served and the amount of money involved.

Several pieces of evidence point to the fact that present allocations by the state are inadequate to meet current costs. For instance, the total allocation for 1972-73 was approximately $30 million. Other data indicate that $12 million was spent on new buses alone, which amounts to 40 percent of the total allocation. However, data from the detailed sample shows that new bus costs average less than 25 percent of total costs. Again, data from the expanded sample showed maintenance and operations costs alone varying between 21% and 69% per student for the groupings of districts examined in this sample.[4]

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[3]Eligible students are those living more than two miles from their school and being transported on approved routes.

[4]Six groupings based upon the Pupil Areal Density of the district (total pupils divided by land area of district) were examined in this sample.

TABLE 2. STATEWIDE CHARACTERISTICS OF PUPIL TRANSPORTATION IN TEXAS-1968-1974

	1968-1969	1969-1970	1970-1971*	1971-1972	1972-1973	1973-1974
# of Regular Transportation Routes	7,788	7,805	7,973	8,312	8,574	8,948
Approved Daily Route Miles	481,956	508,393	512,517	512,895	572,493	549,703
# of Students Transported on Regular Routes	505,554	534,979	583,231	595,955	636,635	670,353
# of Special Education Students Transported	N/A	N/A	13,015	15,766	18,357	19,435
Annual State Allocation for Regular Transportation	19,499,446	19,663,804	24,068,169	25,184,653	26,747,224	27,167,796
Annual State Allocation for Special Educ. Transportation	N/A	N/A	1,919,594	2,406,550	2,797,545	2,913,340
Annual Total State Allocation	19,499,446	19,663,804	25,989,763	27,591,203	29,563,126	30,081,136**
Average # of Pupils per route, Regular	64.9	68.5	73.2	71.7	74.2	74.9
Average Miles Per Route, Reg.	61.9	65.1	64.3	61.7	66.8	61.4
Average Annual Allocation/Pupil Regular	$38.57	$36.76	$41.27	$42.26	42.01	$40.53
Average Annual Allocation/Route	$2,504	$2,519	$3,019	$3,030	$3,120	$3,036

*Allocation/route increase and special education transportation authorized by 1969 Legislature, first reflected.

**Does not include new program costs which began this year.

TABLE 3. ANNUAL % CHANGES STATEWIDE PUPIL TRANSPORTATION CHARACTERISTICS IN TEXAS 1968-1974

	68-69/ 69-70	69-70/ 70-71*	70-71/ 71-72	71-72/ 72-73	72-73/ 73-74
# of Regular Transportation Routes	0.22	2.15	4.25	3.15	4.36
Approved Daily Route Miles	5.49	0.81	0.07	11.62	-3.98
# of Students Transported on Regular Routes	5.82	9.02	2.18	6.83	5.30
# of Special Education Students Transported	N/A	N/A	21.14	16.43	5.87
Annual State Allocation for Regular Transportation	0.69	22.40	4.64	6.20	1.57
Annual State Allocation for Special Educ. Transportation	N/A	N/A	25.37	16.25	4.14
Annual Total State Allocation	0.69	32.17	6.16	7.15	1.75
Average # of Pupils per route, Regular	5.55	6.86	-2.05	3.49	0.94
Average Miles Per Route, Reg.	5.17	-1.23	-4.04	8.27	-8.08
Average Annual Allocation/Pupil Regular	-4.69	12.27	2.40	-0.59	-3.52
Average Annual Allocation/Route	0.60	19.85	0.36	2.97	-2.69

*Allocation/route increased and special education transportation authorized by 1969 legislature.

DETAILED SAMPLE

The array of data collected for the first sample is shown in Appendix B. Selected information from the detailed sample is shown in Tables 4 and 5. To examine the distribution of costs between and within district budgets, operation and maintenance costs are broken into four functional components: (1) office costs, which include all reported administrative and clerical costs; (2) bus drivers' salaries, which are the gross salaries paid to drivers for regular and special education transportation; (3) bus maintenance costs, which include maintenance salaries and materials and money paid for contracted maintenance; and (4) bus operating costs, which include gas and oil costs and bus insurance costs.

The main, and most confounding, feature of school transportation in Texas is its diversity. Examining the percent of total costs falling into each category shows office costs ranging from 3.4 percent to 22.53 percent, with a total sample percentage of 8.44 percent. Bus drivers' salaries range from 27.52 percent to 66.40 percent of the total cost, with an average of 46.89 percent. Maintenance costs vary from 8.36 percent to 47.68 percent of the total, averaging 29.36 percent. Operating costs as a percent of total cost vary from 7.25 percent to 29.66 percent with the total sample exhibiting 15.30 percent of total cost in this category (Table 5). Table 6 shows how costs per pupil vary between districts. This diversity can be attributed to four factors: (1) the broad geographic and demographic diversity of Texas; (2) the variability in the percent of the ADA transported; (3) variability in local cost factors and salary scales; and (4) variability of local expertise in running a school transportation system.

The first of these factors is readily apparent in Table 6 which shows how pupil areal density (PARDEN) - the average daily attendance (ADA) divided by the area of the school district - varies between districts. Low as against high PARDEN values indicate greater dispersal of students. Consequently, as PARDEN decreases, a given size school must draw upon a spatially more extensive catchment area. This increases distances pupils must travel and expands the demand for transportation. The second factor is partially dependent upon the first, but it also involves local decisions, which vary from district to district. Many of the districts transport

TABLE 4. SCHOOL TRANSPORTATION SYSTEM CHARACTERISTICS FOR 49 SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973

DISTRICT NAME	ADA	PUPIL AREAL DENSITY PUPILS/SQ. MI.	REGULAR ROUTES	REGULAR PUPILS	REGULAR MILES	SPECIAL ROUTES	SPECIAL PUPILS	SPECIAL MILES
Center City								
Austin	51,241	178.540	69	6,191	4,046	18	501	1,608
Corpus Christi	39,936	255.887	10	602	598	15	346	1,524
Dallas County	174,715	283.169	238	21,337	9,364	87	1,790	8,200
El Paso	57,195	262.221	67	6,305	1,822	6	168	137
Houston	191,842	616.855	106	14,800	6,318	215	3,655	9,675
San Antonio	62,779	812.734	20	3,307	688	25	580	1,876
Suburban Fast-Growing								
Arlington	22,103	241.766	36	3,799	1,436	8	106	490
Comal	2,385	4.042	26	2,037	2,235	0	0	0
Cypress-Fairbanks	8,677	46.651	69	7,526	6,062	4	50	205
Del Valle	3,709	21.908	22	2,101	1,552	0	0	0
Ennis	1,363	45.032	7	690	269	0	0	0
Mesquite	17,448	295.746	14	1,733	637	5	243	193
Richardson	29,666	771.231	33	5,000	1,320	5	143	375
Spring Branch	39,333	874.857	187	18,949	7,812	23	350	2,300
Suburban Stable								
Alamo Heights	4,311	479.000	1	215	40	0	0	0
Deer Park	6,025	158.526	43	1,934	850	2	43	63
Manor	737	8.172	7	518	290	0	0	0
North East	27,159	204.265	49	7,369	2,451	12	349	1,255
Pasadena	31,770	418.256	34	7,353	2,619	26	655	1,358
Ysleta	34.337	553.823	13	1,935	314	6	292	462
Independent City								
Abilene	17,338	169.846	16	2,020	768	6	250	468
Amarillo	24,995	355.857	9	1,028	397	0	0	0
Ector County	21,171	23.342	56	4,406	2,648	8	220	640
Killeen	12,886	27.071	32	3,665	1,842	3	49	150
Lubbock	30,716	349.057	9	464	381	10	168	537
Port Arthur	13,297	260.725	16	1,655	1,100	5	148	372
San Angelo	13,545	67.069	13	1,557	627	3	65	187
Tyler	14,314	76.171	37	3,551	2,058	5	158	160
Town								
Andrews	2,417	1.617	13	437	1,017	0	0	0
Bastrop	1,780	4.169	17	1,160	1,171	0	0	0
Canyon	2,749	3.856	18	1,552	1,808	0	0	0
Columbia-Brazoria	2,398	10.924	22	1,935	1,261	0	0	0
Edinburg	8,223	8.702	47	3,767	3,052	1	15	82
Fort Stockton	2,865	0.953	10	605	958	0	0	0
Georgetown	1,926	11.117	8	569	556	0	0	0
Hereford	5,139	7.189	26	1,525	2,426	1	33	50
San Marcos	4,207	20.792	16	2,575	941	0	0	0
Temple	7,204	144.080	5	240	250	0	0	0
Waxahachie	3,396	17.687	12	1,295	709	0	0	0
Sparse								
Albany	494	0.840	7	130	450	0	0	0
Breckenridge	1,413	1.755	10	260	1,080	0	0	0
Burnet	1,461	2.229	13	807	1,320	0	0	0
Goliad	1,125	1.394	15	778	1,276	0	0	0
Henrietta	720	1.687	7	250	698	0	0	0
Johnson City	367	0.743	5	158	511	0	0	0
Llano	1,006	1.121	11	573	1,128	0	0	0
Rankin	428	0.489	3	166	512	0	0	0
Spearman	1,000	2.150	8	197	744	0	0	0
Wall	502	1.339	9	490	650	0	0	0

TABLE 5. SCHOOL TRANSPORTATION COST CHARACTERISTICS FOR 49 SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973

DISTRICT NAME	TOTAL COST ($)	OFFICE COST ($)	% OFF. COST	BUS DRIVERS' SALARIES ($)	% BUS DRIVERS' SALARIES	MAINTENANCE COST $	% MAINTE-NANCE COST	OPERATING COST ($)	% OPERATING COST
Center City									
Austin	453,043	52,812	11.66	292,576	64.58	63,589	14.04	44,066	9.73
Corpus Christi	96,662	3,360	3.48	90,102	45.44	40,796	42.20	8,584	8.88
Dallas County	1,041,791	55,524	5.33	484,202	46.48	252,124	42.21	249,614	23.98
El Paso	335,206	43,982	13.12	176,103	52.54	76,500	22.82	38,621	11.52
Houston	1,141,765	56,385	4.94	527,355	46.19	455,931	39.93	102,094	9.94
San Antonio	74,119	10,460	14.11	44,345	59.83	7,246	9.78	12,062	16.28
Suburban Fast Growing									
Arlington	181,592	23,680	13.04	68,112	37.51	60,829	33.50	28,068	15.95
Comal	109,349	13,000	11.89	44,908	41.07	34,160	31.24	17,281	15.80
Cypress-Fiarbanks	352,784	22,887	6.49	198,093	56.15	80,987	22.96	50,817	14.40
Del Valle	90,506	4,680	5.17	52,292	57.78	18,442	20.38	15,817	16.68
Eanes	27,106	3,500	12.91	10,080	37.19	7,463	27.53	6,063	22.37
Mesquite	88,707	16,000	18.04	40,409	45.55	25,758	29.04	6,540	7.37
Richardson	134,151	24,517	18.28	58,550	43.64	41,364	30.83	9,720	7.25
Spring Branch	714,756	46,564	6.51	352,927	49.38	216,312	30.26	98,953	13.84
Suburban Stable									
Alamo Heights	4,439	1,000	22.53	2,215	49.90	550	12.39	674	15.18
Deer Park	160,988	11,234	6.98	51,000	31.68	76,754	47.68	22,000	13.67
Manor	24,434	2,650	10.85	9,930	40.64	7,760	31.76	4,094	16.76
North East	346,983	25,900	7.46	169,847	48.95	91,085	26.25	60,150	17.34
Pasadena	418,083	48,519	11.61	190,814	45.64	102,629	24.55	76,121	18.21
Ysleta	76,085	9,395	12.35	43,477	57.16	11,644	15.31	11,542	15.18
Independent City									
Abilene	87,160	9,460	10.85	36,586	41.98	19,147	21.97	21,967	25.20
Amarillo	35,055	4,946	14.11	14,661	41.82	9,755	27.83	5,693	16.24
Ector County	344,153	19,461	5.65	167,055	48.54	111,804	32.49	45,833	13.32
Killeen	128,982	8,578	6.65	48,020	37.24	50,204	38.92	22,171	17.19
Lubbock	82,941	14,730	17.76	55,076	66.40	6,931	8.36	6,204	7.48
Port Arthur	111,222	13,811	12.42	54,411	48.92	22,000	19.78	21,000	18.88
San Angelo	74,051	15,000	20.26	24,553	33.16	24,429	32.99	10,069	13.60
Tyler	152,182	13,807	9.01	73,488	48.29	45,281	29.75	19,705	12.95

(continued)

TABLE 5. SCHOOL TRANSPORTATION COST CHARACTERISTICS FOR 49 SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST ($)	OFFICE COST ($)	% OFF. COST	BUS DRIVERS' SALARIES ($)	% BUS DRIVERS' SALARIES	MAINTENANCE COST $	% MAINTE-NANCE COST	OPERATING COST ($)	% OPERATING COST
Town									
Andrews	66,461	11,970	18.01	28,224	42.47	21,118	31.78	5,149	7.75
Bastrop	59,483	4,800	8.07	24,757	41.62	19,512	32.80	10.414	17.51
Canyon	88,124	7,000	7.94	24,255	27.52	37,794	42.89	10.075	21.65
Columbia-Brazoria	69,432	5,000	7.20	21,719	31.28	29,443	42.41	13,270	19.11
Edinburg	178,526	16,922	9.48	59,126	33.12	75,750	42.43	26,728	14.97
Fort Stockton	59,652	1,580	2.65	21,228	35.59	21,795	36.54	15,049	25.23
Georgetown	27,971	2,210	7.90	8,799	31.46	9,720	34.75	7,242	25.89
Hereford	93,824	7,627	8.13	34,646	36.93	32,410	34.54	19.141	20.40
San Marcos	71,151	7,500	10.54	29,279	41.15	21,052	29.59	13,320	19.72
Temple	18,784	5,454	29.04	6,790	36.15	2,995	15.94	3,545	18.87
Waxahachie	36,510	2,400	6.57	19,093	52.30	6,157	16.86	8,860	24.27
Sparse									
Albany	15,952	1,200	7.52	6,815	42.72	5,627	35.27	2,310	14.48
Breckenridge	35,622	3,500	9.83	11,655	32.72	14,092	39.56	6,375	17.90
Burnet	47,274	3,000	6.35	19,240	40.70	14,122	29.87	10,912	23.08
Goliad	42,755	5,641	13.19	16,917	39.57	13,039	30.50	7,158	16.74
Henrietta	18,488	450	2.43	9,500	51.38	4,000	21.64	4,538	24.55
Johnson City	13,391	1,000	7.41	4,616	34.22	3,874	28.72	4,001	29.66
Llano	43,652	3,200	7.33	14,649	33.56	18,813	43.10	6,990	16.01
Rankin	24,220	900	3.72	9,979	41.20	6,277	25.92	7,064	29.17
Spearman	33,917	2,900	8.55	12,500	36.85	13,497	39.79	5,020	14.80
Wall	19,648	1,500	7.63	10,840	55.17	2,214	11.27	5,094	25.93
TOTALS	7,953,205	671,497	8.44	3,729,643	46.89	2,334,903			

N.B. The total cost figures refer to the sum of component costs (defined on p. 15) for operations and maintenance. They do not include capital costs or allowances for items such as bus purchase, leasing or depreciation.

TABLE 6. THE PROVISION OF PUPIL TRANSPORTATION IN 49 TEXAS SCHOOL DISTRICTS, 1972-1973 ACADEMIC YEAR

School District	Pupil Areal Density (PARDEN)	% of ADA Transported (Regular)	% of ADA Transported (Special)	Cost Per Pupil Per Day $
Center City				
Austin	178.54	12.1	0.98	.189
Corpus Christi	255.89	1.5	0.87	.566
Dallas County	283.17	12.2	1.02	.250
El Paso	262.22	11.0	0.29	.287
Houston	616.86	7.7	1.91	.343
San Antonio	812.73	5.3	0.92	.105
Suburban - Fast Growing				
Arlington	241.77	17.2	0.47	.258
Comal	4.04	93.7	0.00	.298
Cypress-Fairbanks	46.65	86.7	0.58	.258
Del Valle	21.91	41.9	0.00	.239
Eanes	45.03	50.9	0.00	.218
Mesquite	295.75	9.9	1.39	.249
Richardson	771.23	16.7	0.48	.144
Spring Branch	874.86	48.2	0.89	.205
Suburban - Stable				
Alamo Heights	479.00	5.0	0.00	.114
Deer Park	158.53	32.1	0.71	.045
Manor	8.17	70.3	0.00	.262
North East	204.27	27.1	1.29	.249
Pasadena	418.26	23.1	2.06	.290
Ysleta	553.82	5.6	0.85	.189
Independent City				
Abilene	169.85	11.7	1.44	.213
Amarillo	355.86	4.1	0.00	.189
Ector County	23.34	20.8	1.04	.413
Killeen	27.07	28.4	0.38	.192
Lubbock	349.06	1.5	0.55	.729
Port Arthur	260.73	12.4	1.11	.342
San Angelo	67.07	11.5	0.48	.253
Tyler	76.17	24.8	1.10	.227
Town				
Andrews	1.62	18.1	0.00	.844
Bastrop	4.17	65.2	0.00	.284
Canyon	3.86	56.5	0.00	.314
Columbia-Brazoria	10.92	80.7	0.00	.199
Edinburg	8.70	45.8		.262
Fort Stockton	0.95	21.1	0.00	.547
Georgetown	11.12	29.5	0.00	.273
Hareford	7.19	29.7	0.64	.334
San Marcos	20.79	61.2	0.00	.153
Temple	144.08	3.3	0.00	.434
Waxahachie	17.68	38.1	0.00	.156
Sparse				
Albany	0.84	26.3	0.00	.196
Breckenridge	1.76	18.4	0.00	.183
Burnet	2.23	55.2	0.00	.198
Goliad	1.39	69.2	0.00	.186
Henrietta	1.69	34.7	0.00	.147
Johnson City	0.74	43.1	0.00	.146
Llano	1.12	57.8	0.00	.214
Rankin	0.49	38.8	0.00	.262
Spearman	2.15	19.7	0.00	.253
Wall	1.34	97.6	0.00	.167

ineligible students, and the costs, mileages, etc. involved in this task are generally inseparable in the districts' transportation records from those incurred in running the transportation system for eligible students only.

The third of these factors is readily apparent from an examination of Table 7. There is wide variability in bus driver monthly salaries, even between quite similar districts. It is quite likely that similar variability occurs in salaries of administrative and maintenance personnel. Similar variability between districts is also apparent in unit gasoline prices and in gas mileage experienced by the district (also shown in Table 7), both of which help to determine the operating cost category total for the district.

The fourth factor is much more subtle and almost impossible to demonstrate conclusively. It involves such factors as better overall system administration yielding ultimate savings in total system cost. An example of this point is computerized routing, which is being experimented with by some districts. The use of computerized routing would probably involve larger office costs but should save on costs in the other three categories. These types of occurrences undoubtedly contribute to the disparity of cost distribution between districts which are quite similar in geography, demography and percent of ADA transported.

Another consideration to be addressed is the temporal variation of school transportation costs. Data for school year 1973-74, shown in Table 8 and Table 9, were obtained for 27 of the 49 districts in the detailed sample. Table 10 presents some comparisons of these data with those for 1972-73. Total costs increased in 24 of 27 cases. The most striking change in terms of cost components was the increase in the percent of total costs accounted for by operating costs (gasoline, oil and insurance.)

It is certain that general inflation of the national economy is partially responsible for the general increase in costs. Additionally, the transportation of more pupils, the running of more miles daily and the operation of more routes would be expected to drive costs up. The "energy crisis" which the nation is experiencing is also a factor causing shifts in cost distribution. This factor is no doubt the major cause of the striking increase in operating costs between the two years. Table 11

TABLE 7. SOME LOCAL COST FACTORS FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973

District Name	Average Bus Drivers' Monthly Salary ($)	Per Gallon (¢) Gasoline Prices	Average Gas Mileage For School Bus Fleet
Center City			
Austin	237	16.49	4.5
Corpus Christi	240	17.55	6.0
Dallas County	167	34.40	6.0
El Paso	276	17.70	5.5
Houston	175	15.90	6.6
San Antonio	197	31.90	10.8
Suburban Fast Growing			
Arlington	166	20.50	4.7
Comal	195	18.50	5.0
Cypress-Fairbanks	160	17.59	5.5
Del Valle	135	19.79	5.5
Eanes	200	21.90	5.0
Mesquite	150	22.90	5.5
Richardson	154	16.50	6.0
Spring Branch	295	17.90	5.1
Suburban Stable			
Alamo Heights	246	32.70	3.5
Deer Park	186	18.50	5.1
Manor	120	32.00	5.8
North East	208	19.58	5.5
Pasadena	248	17.55	5.1
Ysleta	230	22.80	5.0
Independent City			
Abilene	150	16.66	5.0
Amarillo	181	17.95	3.0
Ector County	175	17.70	5.2
Killeen	184	18.75	5.1
Lubbock	229	17.95	4.0
Port Arthur	288	19.95	6.0
San Angelo	165	15.19	5.2
Tyler	183	16.35	5.0
Town			
Andrews	392	18.55	6.0
Bastrop	142	16.90	4.6
Canyon	106	18.60	5.0
Columbia-Brazoria	127	20.95	4.6
Edinburg	135	18.19	5.7
Fort Stockton	180	21.09	5.0
Georgetown	130	18.77	6.0
Hereford	144	17.95	7.0
San Marcos	180	18.30	4.8
Temple	165	17.90	6.0
Waxahachie	140	18.90	6.0
Sparse			
Albany	121	18.40	8.6
Breckenridge	140	18.65	6.0
Burnet	148	23.25	8.1
Goliad	147	18.75	6.3
Henrietta	120	18.65	8.0
Johnson City	100	19.00	5.7
Llano	130	19.17	6.9
Rankin	222	19.22	6.4
Spearman	156	19.00	5.0
Wall	134	18.90	5.0

TABLE 8. SCHOOL TRANSPORTATION SYSTEM CHARACTERISTICS FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1973-1974

District Name	ADA	Pupil Areal Density	Regular Routes	Regular Pupils	Regular Miles	Special Routes	Special Pupils	Special Miles
Abilene	17,326	166.596	16	2,075	815	4	163	344
Alamo Heights	4,140	460.000	1	227	40	0	0	0
Albany	450	0.765	7	139	470	0	0	0
Amarillo	24,335	347.643	13	1,272	592	0	0	0
Andrews	2,403	1.598	12	437	972	0	0	0
Arlington	23,946	254.745	42	3,854	1,699	5	110	380
Canyon	2,823	3.959	19	1,597	1,900	0	0	0
Columbia-Brazoria	2,341	10.739	23	2,064	1,298	0	0	0
Dallas County	174,715	283.169	241	20,572	9,345	85	1,818	8,230
Deer Park	6,150	161.842	43	1,938	850	2	43	63
El Paso	57,195	268.521	75	7,139	2,014	6	173	137
Fort Stockton	2,931	0.975	10	677	958	0	0	0
Goliad	1,087	1.241	15	732	1,302	0	0	0
Henrietta	720	1.694	7	260	698	0	0	0
Hereford	4,990	7.078	26	1,550	2,409	1	34	50
Lubbock	30,408	345.545	10	458	373	12	230	617
Mesquite	18,007	305.203	15	1,921	753	5	217	201
Port Arthur	12,362	247.240	16	1,706	1,125	5	136	381
Rankin	428	0.469	3	156	512	0	0	0
Richardson	31,200	800.000	35	6,000	1,400	5	150	400
San Antonio	60,620	767.342	22	3,595	712	27	645	2,197
San Angelo	13,500	66.832	16	1,785	743	3	74	182
Spearman	1,015	2.169	8	205	688	0	0	0
Temple	7,204	144.080	5	243	249	0	0	0
Wall	545	1.453	9	520	680	0	0	0
Waxahachie	3,481	18.130	12	1,376	692	0	0	0
Ysleta	36,143	523.812	14	1,713	451	6	295	456

TABLE 9. SCHOOL TRANSPORTATION COST CHARACTERISTICS FOR SELECTED SCHOOL DISTRICTS FOR SCHOOL YEAR 1973-1974

District Name	Total Cost ($)	Office Cost ($)	% Off. Cost	Bus Drivers' Salaries ($)	% Bus Drivers' Salaries	Maintenance Cost	% Maintenance cost	Operating Cost	% Operating Cost
Abilene	102,924	9,812	9.53	43,732	42.49	23,535	22.87	25,845	25.11
Alamo Heights	5,063	1,150	22.71	2,351	46.43	646	12.76	916	18.09
Albany	18,901	1,200	6.35	7,850	41.53	6,357	33.63	3,494	18.49
Amarillo	42,664	5,756	13.49	23,021	53.96	8,646	20.27	5,241	12.28
Andrews	67,119	13,983	20.83	28,664	42.71	19,073	28.42	5,399	8.04
Arlington	189,419	25,309	13.36	74,448	39.30	50,280	26.54	39,382	20.79
Canyon	100,026	13,300	13.30	22,986	22.98	40,400	40.39	23,340	23.33
Columbia-Brazoria	76,930	5,000	6.50	29,835	38.78	25,823	33.57	16,272	21.15
Dallas County	1,014,831	56,908	5.61	504,426	49.71	200,107	19.72	253,390	24.97
Deer Park	200,102	11,906	5.95	58,500	29.24	99,696	49.82	30,000	14.99
El Paso	380,810	46,824	12.30	189,040	44.64	77,681	20.40	67,265	17.66
Fort Stockton	59,326	1,625	2.74	19,155	32.29	25,438	42.88	13,108	22.09
Goliad	47,111	5,220	11.08	18,443	39.15	11,564	24.55	11,884	25.23
Henrietta	19,659	500	2.54	9,500	48.32	4,300	21.36	5,459	27.77
Hereford	114,487	8,038	7.02	37,928	33.13	40,268	35.17	28,253	24.68
Lubbock	103,959	13,977	13.44	63,421	61.10	13,718	13.20	12,743	12.26
Mesquite	112,008	18,000	16.07	46,539	41.55	27,798	24.82	19,671	17.56
Port Arthur	121,192	14,660	12.10	55,532	45.82	27,000	22.28	24,000	19.80
Rankin	29,591	900	3.04	12,011	40.59	6,496	21.95	10,184	34.42
Richardson	167,547	26,468	15.80	64,405	38.44	52,524	31.35	24,150	14.41
San Antonio	92,325	11,220	12.15	54,370	58.89	8,974	9.72	17,761	19.24
San Angelo	91,469	17,900	19.57	35,421	38.72	24,432	26.71	13,716	15.00
Spearman	33,571	2,900	8.64	12,500	37.23	11,128	33.15	7,043	20.98
Temple	20,985	5,299	25.25	7,324	34.90	3,206	15.28	5,156	24.57
Wall	25,653	2,000	7.80	10,610	41.36	3,840	14.97	9,203	35.87
Waxahachie	51,231	8,800	5.47	21,147	41.28	9,821	19.17	17,463	34.09
Ysleta	76,332	11,155	14.61	35,415	46.40	13,806	18.09	15,956	20.90
Totals	3,554,041	347,195	9.77	1,596,067	44.91	876,550	24.66	734,229	20.66

Note: The total cost figures refer to the sum of component costs (defined on p. 15) for operations and maintenance. They do not include capital costs or allowances for items such as bus purchase, leasing or depreciation.

TABLE 10. SOME COMPARISONS OF SCHOOL TRANSPORTATION COSTS BETWEEN SCHOOL YEARS 1972-1973 AND 1973-1974 FOR 27 TEXAS SCHOOL DISTRICTS

District Name	Increase in Total Cost as a % of 72-73 Total	Increase in Total Pupils Transported as a % of 72-73 Total	Operating Cost as a % of Total 72-73	Operating Cost as a % of Total 73-74
Abilene	18.08	-1.41	25.20	25.11
Alamo Heights	14.06	5.58	15.18	18.09
Albany	18.49	6.92	14.48	18.49
Amarillo	21.71	23.74	16.24	12.28
Andrews	0.99	0.00	7.75	8.04
Arlington	4.31	1.51	15.95	20.79
Canyon	13.51	2.90	21.65	23.33
Columbia-Brazoria	10.80	6.67	19.11	21.15
Dallas County	-2.59	-3.19	23.98	24.97
Deer Park	24.30	0.20	13.67	14.99
El Paso	13.60	12.96	11.52	17.66
Fort Stockton	-0.55	11.90	25.23	22.09
Goliad	10.19	-5.91	16.74	25.23
Henrietta	6.33	4.00	24.55	27.77
Hereford	22.02	1.67	20.40	24.68
Lubbock	25.34	8.86	7.48	12.26
Mesquite	26.27	8.20	7.37	17.56
Port Arthur	8.96	2.16	18.88	19.80
Rankin	22.18	-6.02	29.17	34.42
Richardson	24.89	19.58	7.25	14.41
San Antonio	24.56	9.08	16.28	19.24
San Angelo	23.52	14.61	13.60	15.00
Spearman	-1.02	4.57	14.80	20.98
Temple	11.72	1.25	18.87	24.57
Wall	30.56	6.12	25.93	35.87
Waxahachie	40.32	6.25	24.27	34.09
Ysleta	0.32	-9.83	15.18	20.90
Average	15.29	4.90	17.43	20.66

TABLE 11. COMPARISON OF GASOLINE PRICES FOR SCHOOL YEARS 1972-73 AND 1973-1974 FOR SELECTED TEXAS SCHOOL DISTRICTS

District Name	72-73 Price (¢)	73-74 Sept. Price (¢)	73-74 May Price (¢)
Abilene	16.66	21.30	34.50
Alamo Heights	32.70	32.70	49.50
Albany	18.40	18.70	32.60
Amarillo	17.95	17.95	35.90
Andrews	18.55	25.90	38.90
Arlington	20.50	27.18	39.98
Canyon	18.50	20.00	36.00
Columbia-Brazoira	20.95	27.48	41.60
Dallas County	34.40	32.60	39.60
Deer Park	18.50	18.50	35.00
El Paso	17.70	25.20	35.70
Fort Stockton	21.09	21.09	21.09
Goliad	18.75	18.75	29.65
Henrietta	18.54	27.70	37.10
Hereford	17.95	19.75	34.60
Lubbock	17.95	23.00	38.50
Mesquite	22.90	25.10	37.30
Port Arthur	19.95	23.70	32.30
Rankin	19.22	26.50	34.00
Richardson	16.50	35.00	34.30
San Antonio	31.90	33.90	48.90
San Angelo	15.19	20.19	36.47
Spearman	19.00	24.00	32.90
Temple	17.90	17.90	24.50
Wall	18.90	24.20	39.50
Waxahachie	18.90	23.00	42.50
Ysleta	22.80	24.20	33.50

compares the unit prices paid in each of the two years for gasoline by the 27 districts. In general, 1972-73 prices were stable and much lower than 1973-74 prices, which varied (and rose) during the year. A very few districts like Fort Stockton were lucky enough to have gasoline contracts which continued 1972-73 prices through 1973-74. These districts will also be experiencing increased operating costs in the coming school year.

Table 12 shows that temporal variation in unit bus drivers' salaries can also be quite large. Inflationary pressure is also a probable cause here. Additionally, the statewide trend toward more intensive training of drivers and the desire to increase driver longevity is a factor. This factor mitigates unequally among the various districts, which helps to account for the widely varying temporal changes in unit bus drivers' salaries among the 27 districts.

The above discussions point toward two conclusions. Costs vary widely in amount and distribution across the state and they are generally increasing with time. These conclusions have great implications for the relevance of the present formula and for the job any new formula must do.

EXPANDED SAMPLE

Data from the 335 districts in the expanded sample is arrayed in Tables B2 and B3 in Appendix B. Once again, diversity is the byword for the same reasons outlined above. All of these data are for school year 1972-73, so no temporal comparisons are available. Note that the cost data in Table B2, as with all data discussed so far, does not include any bus replacement costs.

SUMMARY

Two factors are brought sharply into focus in this chapter: (1)statewide, the present funding system is not meeting the costs incurred in pupil transportation in Texas and (2) school transportation costs vary greatly from district to district and over time.

Diversity between districts was tied to five factors:

TABLE 12. COMPARISON OF BUS DRIVERS' SALARIES MONTHLY SALARIES FOR SCHOOL YEARS 1972-1973 AND 1973-1974 FOR SELECTED TEXAS SCHOOL DISTRICTS

District Name	72-73 Salary ($)	73-74 Salary ($)
Abilene	150	180
Alamo Heights	246	261
Albany	121	137
Amarillo	181	280
Andrews	392	392
Arlington	166	176
Canyon	106	120
Columbia-Brazoria	127	151
Dallas County	132	135
Deer Park	186	200
El Paso	225	244
Fort Stockton	180	180
Goliad	147	154
Henrietta	120	120
Hereford	144	157
Lubbock	229	275
Mesquite	150	175
Rankin	222	267
Richardson	154	169
San Antonio	197	224
San Angelo	165	173
Spearman	156	156
Temple	165	175
Wall	134	131
Waxahachie	140	145
Ysleta	230	197

(1) geographic/demographic diversity,
(2) variability in percent of ADA transported,
(3) variability of local cost factors,
(4) variability in local expertise available, and
(5) temporal variability of cost factors.

In the next chapter, the present formula is presented and its shortcomings are discussed in light of the actual school transportation costs presented in this chapter. Particularly critical in the evaluation is the ability of the current formula to reflect actual costs incurred by school districts.

CHAPTER FOUR: EVALUATING THE CURRENT ALLOCATION OF SCHOOL TRANSPORTATION FUNDS

THE PRESENT FORMULA

The formula presently in use for funding school transportation in Texas is shown in Figure 1. Its main feature is that payments are made on a per route basis. The amount of each route's allotment is varied in accordance with the number of eligible pupils riding that bus. An eligible pupil is defined as one who resides at least two miles by the shortest road link from the school he attends. Additional variation in the allotment is afforded by deviation from the assumed statewide average route length of 45 to 55 miles and/or by a district having more than 40 percent of its mileage on dirt roads (which rarely, if ever, occurs today.)

As stated in Figure 1, the transportation allotments are meant to account for the costs of maintenance, operations, salaries, and depreciation of equipment (mainly buses) to the district. Note that the maximum base allotment for a given route is $3,276 per year, with 72 eligible pupils on that route. The minimum capacity route funded is 15 eligible pupils, which earns the district a base allotment of $2,196. For routes carrying less than 15 eligible pupils, current practice allows $75 annually per eligible pupil. Such a situation is apparently assumed to fall within the "isolated areas" provision shown under (g) in Figure 1.

Under current law, all school transportation systems are subject to review by the state commissioner of education, who is charged with enforcing efficiency of system structure. No new routes may be added to any system without a review of the entire local system. The district is then charged with running the system as approved by the state in an economical manner.

As an alternative to operating its own school transportation system, or as a supplement to its school transportation system, a district may opt to contract with a public transportation company for school

16.56. CALCULATION OF ALLOTMENT

(a) The total annual regular transportation cost allotment for each district or county shall be based upon the rules and formulas of this section.

(b) A typical bus route is defined as being from 45 to 55 miles of daily travel and composed of 60 percent surfaced roads and 40 percent dirt roads, over which 15 or more pupils who live two or more miles from school are transported.

(c) Allowable total base costs of maintenance, operations, salaries, depreciation, etc., for each bus shall be:

72 capacity bus	$3,276 per year
60-71 capacity bus	3,156 per year
49-59 capacity bus	3,036 per year
42-48 capacity bus	2,916 per year
30-41 capacity bus	2,796 per year
20-29 capacity bus	2,676 per year
15-19 capacity bus	2,196 per year

(d) The capacity of a bus means the number of eligible children being transported who live two or more miles from school along the approved route served by the bus. A bus that makes two or more routes or serves two or more schools shall be considered as having a capacity equal to the largest number of eligible children on the bus at any one time.

(e) For each one percent increase of dirt road above 40 percent, one-half of one percent shall be added to the allowable total cost.

(f) For each five miles (or major fraction thereof) increase in daily bus travel above 55 miles, one percent shall be added to the total cost of operation. For each five miles (or major fraction thereof) less than 45 miles daily travel, one percent shall be deducted from the total cost of operation.

(g) The state commissioner of education may grant not to exceed $75 per pupil per year for private or commercial transportation for eligible pupils from isolated areas. The need for this type of transportation grant shall be determined on an individual basis and the amount granted shall not exceed the actual cost. Such grants shall be made only in extreme hardship cases, and no such grants shall be made if the pupils live within two miles of an approved school bus route or city public transportation service.

Subsec. (c) amended by Acts 1971, 62nd Leg., p. 1508, ch. 405, Section 30, Effective May 26, 1971.

Source: Texas Education Code, page 181 and 182.

FIGURE 1. FOUNDATION SCHOOL PROGRAM

transportation services. However, such a contract must be "economically advantageous" to the district. This in effect means that such a contract cannot be approved unless its cost is less than the total allotment for that district would be if the district operated its own system.

The above relates to "regular" transportation - the transportation of the typical pupil to and from the school he or she regularly attends. Provision is also made under Texas law for funding other types of transportation, namely, special education, vocational, and bilingual. Special education transportation is the transportation of exceptional (handicapped) children who are unable to utilize existing school transportation facilities and who would not be able to attend the exceptional children class unless this transportation was provided. The current allotment for this transportation is a flat grant per qualifying pupil of $150 annually. Transportation to and from vocational and bilingual classes which occur at a place other than the campus of regular attendance is now being funded at a locally determined cost per bus mile. (Funding of these types of transportation began after the initiation of this research and so is not addressed by it.)

Finally, it should be noted that under current law, funding of school transportation is paid "off the top" of a district's state allocation; that is, if a district is entitled to any state money under the Minimum Foundation Program, the transportation entitlement is funded first and until it has been 100 percent reimbursed before any other allotments of the program are addressed. This procedure applies to all the transportation allotments discussed above.

EVALUATION OF THE PRESENT FORMULA

Adequacy of Funds

An evaluation of the present formula must address the issues of adequacy of funds and equity in their distribution. It is generally conceded that the present formula underfunds most districts' needs. Evidence for this was presented in Chapter III. The average state allocation for all expenditures amounts to 23¢ per student per day. Over 70 percent of the school districts in the detailed sample exceed this in

maintenance and operations (M & O) costs alone. An examination of Table B2 (Appendix B) shows that of the 335 districts in the expanded sample only 45 exhibit a per route cost for M & O alone of less than $3,276, the highest base allotment for all costs under the present formula.

If it is merely underpayment which is causing problems with the present formula, an obvious solution is to increase the base allotments. This has occurred from time to time since the formula's inception in 1951. These increases were presumeably granted to reflect changing cost levels. However, there is no evidence that any study was conducted to determine the appropriate amount of these increases. Thus, it is not known today how these allotments relate to costs actually incurred by districts in operating a route of a given description. More specifically, the following things are not known:

(1) how much it costs to run a bus of a given size over an average route. Thus, there are no bases for the amounts given in Figure 1, paragraph (c).

(2) whether a one percent change in cost is incurred for a five-mile change in average route length [Figure 1, paragraph (f)].

(3) whether, for routes with less than 15 students, transportation costs amount to $75 per student [Figure 1, paragraph (g)].

Note also that a 14-pupil route would fund a district at $1,050 regardless of mileage, but a 15-pupil route is funded at $2,196, plus or minus mileage corrections. Thus, the addition of one student doubles the funding.

A second possibility is to obtain such information by repeating the type of analysis presumeably conducted in the initial development of the 1951 formula. Although little information is available about this, one source has indicated that data was gathered which allowed determination of the length of a "typical route" and the costs of hauling various numbers of pupils over such a route. Utilizing this information the base allotment for each capacity range was established.

If this route bases for allocating funds is to be continued, at the least a major overhaul in the definition of an average route is required. This follows from the following facts:

(1) In the present formula, a typical bus route is defined as between 45 and 55 miles long, with 40 percent on dirt roads

[Figure 1, paragraph (b)]. Table 2 shows the average route length to be over 60 miles at present, and only a small amount is on dirt roads.

(2) The highest load factor allowed by the formula is 72 students per route. Table 2 shows that the present average number of pupils per route is 74.

However, several factors mitigate against utilizing a "typical route" as the basis for the distribution of transportation funds. It is likely that school transportation in 1951 was a rather "rural" enterprise, and complex urban systems did not greatly affect financial considerations. Thus, a uniform cost figure for a given route was probably deriveable. Unfortunately, this may not be the case today. Because of marked variability between school districts, a formula of the present type is unable to reflect accurately variations in local costs. This leads to the question of equity in the distribution of funds.

Equity of Distribution

Though adequacy could perhaps be addressed by increasing the base allotments of the current formula, such a strategem would do nothing to enhance equity. The current formula is inequitable in its distribution of transportation funds primarily due to its inflexibility with regard to the factors causing variability in local costs. Also a source of inequity is the 100 percent funding of transportation allotments off the top, which, given adequacy of funds, provides no reward for efficiency nor any deterrent to inefficiency in operating a local system.

One source of variability between districts lies in the types of routes operated by different districts. The "typical route" concept suggests one morning and one evening run over a route. However, many districts (mostly in urban areas) find it necessary to make multiple runs in the afternoon due to staggered ending times of school days at the various school levels. Multi-loop routings of one bus to serve more than one area and/or campus is also prevalent among urban systems. Also, trips during the day to a specialized school (for instance, a centralized science facility) are not easily incorporated into a typical route format.

A second source of variation in local costs, which was demonstrated

in Chapter III, is geographic and demographic diversity among the school districts. It is logical to assume that districts with high population density, and thus high pupil areal density, in all probability would have shorter routes, with higher load factors. Districts with low pupil areal density would be expected to run longer routes and achieve lower load factors. This generalization is tempered by the area of the district in question since small area districts will not in general experience long route lengths even if pupil areal density is low. A third factor, also shown in Chapter III, relates to variability in local costs for gasoline, administrative, maintenance and storage facilities and in salary scales.

Another factor relating to local cost variability is temporal change in cost structures. Shifts in the national and regional economy can lead to changes in cost levels which affect school districts differentially. Only if these changes are carefully monitored from year to year can they be incorporated into a typical route format which truly reflects local costs. As indicated above, the failure to monitor such changes has led to a present formula which does not reflect the actual costs of student transportation.

Finally, the question of changes in eligibility requirements for state support of student transportation must be addressed. The present eligibility limit is two miles; that is, pupils living less than two miles from the school they attend are not eligible for state funding of school transportation. Additional transportation costs associated with any reduction in this eligibility limit would not be accurately reflected by a formula of the present type. Often, population is denser within the two-mile limit than outside it (especially true in the "Town" category.) Lowering the eligibility limit would probably produce higher load factors, but these would be achieved at a proportionately lower expenditure of mileage than for pupils outside the two-mile limit. This would be caused by the denser pupil population and by the proximity of the additional pupils to their destination. The expected higher load factors would push the district to a higher funding level. Due to the fact that these additional pupils would be accommodated while the system ran proportionately fewer miles than it ran for pupils presently accommodated by the formula,

payments could be expected to increase out of proportion to the additional cost involved.

It is difficult to incorporate all these factors into a "typical route" format without introducing a large number of "adjustments". In turn, these require extensive monitoring by the state. Where funding is made on a flat grant basis (as is the case with special education transportation) there is no allowance at all for local variability.

Conclusion

The above discussion points to the need for restructuring state funding of school transportation in Texas. Current allocations do not meet current costs. Equity in fund distribution is not met. A method of funding which can accurately reflect the varying costs in varying locales in a simple, straightforward manner is required. A "typical route" funding approach is perhaps no longer relevant to present-day complex school transportation systems. A formula should be sought which:

(1) reflects actual costs of student transportation,

(2) accommodates variability between school districts in costs incurred,

(3) can be adjusted to reflect temporal changes in cost structures, and

(4) can incorporate changes in eligibility requirements.

The "typical route" format of the present formula is unlikely to meet these aims.

ALTERNATIVES TO THE PRESENT FORMULA

What are the alternative methods available for funding school transportation? A survey of funding methods used by the other states (shown in Table B4 of Appendix B) shows that they all fall into one of four categories:

(1) flat grant;

(2) percentage grant,

(3) actual or approved expenditures, and

(4) formula.

The criticisms leveled against flat grant funding in the above discussions (p. 35), which also apply to the percentage grant, make the first two alternatives immediately unacceptable. Flat grants and percentage grants do not account for variability between school districts other than with respect to the number of pupils transported. Reimbursement of actual expenditures embraces no equalization and may lead to abuse if self-reports are used as source data. This situation can be remedied by reimbursing only approved expenditures, but this requires very large central administration effort and expense.

Again, consulting current practice of the several states (Table B4), six factors appear as bases for determining local entitlements in the various formulae employed:

(1) number of pupils transported,
(2) number of vehicles,
(3) mileage run,
(4) density measures,
(5) road conditions, and
(6) vehicle depreciation.

In an exhaustive analysis of the detailed sample all of these factors and more were investigated as possible predictors of school district transportation costs. It was concluded from these analyses that, in a simple equation, density measures were best able to account for variability in costs. Similar analysis of the detailed sample reinforced this, as did current expert opinion in the field of school transportation. These analyses are discussed in the next chapter.

CHAPTER FIVE: INITIAL MODEL EXPLORATION

An initial decision was made that the new formula would be based upon a mathematical equation which, given characteristics of a school district, would be capable of predicting its transportation costs. Multiple regression was chosen to derive this equation and decisions were necessary as to the independent (predictor) and dependent (criterion) variables to be utilized. The dependent variable had to comprise a measure of the costs incurred by a school district in transporting students. This could be expressed in absolute cost terms for all students, or as a unit cost in which costs are expressed per base unit, such as pupil, route, bus and mile. Total transportation costs of a school district, expressed either in absolute or in per unit terms, can also be subdivided into component cost categories, such as maintenance and running costs. The predictor variables may comprise measures of the transportation system operated, the school district served by the system, or the community within which the district is located. These various possibilities were explored using data from the first sample. The analyses, although not themselves statistically significant because of the small sample, gave some indication of the characteristics of the data and hinted at the predictive model and associated formula which was finally derived.

MODEL FORMATS

Component Cost Approach

The initial modelling effort concentrated upon a component cost approach. The total transportation cost combining both regular and special transportation was divided into six components: (1) office costs; (2) bus drivers' salaries; (3) bus operating costs; (4) bus maintenance costs; (5) physical plant costs for bus garages and similar

large capital outlays other than for new buses; and (6) bus replacement costs. Because major capital outlays are not recurrent, components (5), physical plant improvements, and (6), bus replacement, were not addressed at this stage. For each of the remaining components a predictive equation was sought. Initial exploration concentrated upon three major forms, which are briefly outlined below.

Absolute Cost With All Predictor Variables

One set of models attempted to predict absolute costs for each cost component from a wide array of predictor variables measuring transportation system and school district characteristics. The models explored are summarized below.

Office Costs Model. The dependent variable in the office costs model was the total administrative and clerical costs reported by the district. Predictor variables considered included:

(1) number of routes,
(2) number of route systems (regular, special, ineligible),
(3) number of regular pupils transported,
(4) number of special education pupils transported,
(5) percent of ADA transported,
(6) transported pupil areal density,
(7) regular linear density,
(8) special linear density,
(9) number of campuses served, and
(10) pupil areal density.

Bus Drivers' Salaries. The dependent variable for this model was the gross drivers' salaries paid by the district for the school year. Predictor variables considered included:

(1) driver monthly salaries (or equivalent monthly salaries for those districts paying on an hourly basis),
(2) number of regular routes,
(3) regular average route length,
(4) number of special education routes,
(5) special education average route length,

(6) transported pupil areal density,

(7) regular transported pupil areal density,

(8) regular linear density, and

(9) special education linear density.

Operating Costs Model. Operating costs included gross gasoline (and sometimes oil) costs and bus insurance and driver bonding costs. Predictor variables for operating costs included:

(1) unit gasoline price,

(2) gasoline mileage,

(3) daily route miles,

(4) number of buses insured, and

(5) average bus age.

Maintenance Costs Model. An adjusted maintenance cost was used as the dependent variable for this model. The basic maintenance cost included mechanics' salaries, contracted maintenance and repair, and costs of parts and consumable maintenance supplies. This basic maintenance cost was adjusted for the portion of total annual bus mileage that was expended on co-curricular travel. Predictor variables for maintenance cost included:

(1) daily route mileage,

(2) average bus age,

(3) transported pupil areal density,

(4) pupil areal density,

(5) regular linear density,

(6) unpaved route mileage,

(7) number of buses run by district,

(8) number of pupils transported, and

(9) maintenance salary per daily route mile.

Results of these analyses were less than satisfying. Relatively high R^2 values were obtained, but this was a consequence of the large number of variables relative to observation units and the marked size differences between the sample school districts. Size related variables such as number of students transported and total miles traveled dominated to the exclusion of other factors, leading to differential costs between

school districts. Furthermore, the large variability within the data vectors caused acute amplification of tendencies not accounted for by the form of the regression equation. Thus, the predicted cost for specific school districts could be way out of line with actual costs incurred. To overcome these problems a unit-cost approach was explored.

Unit Costs With All Predictor Variables

The unit costs examined for each cost component are listed below:

(1) office cost - office cost/pupil and office cost/route;

(2) bus drivers' salaries - drivers' salaries/route;

(3) operating cost - operating cost/route and operating cost/mile;

(4) maintenance cost - maintenance cost/bus and maintenance cost/mile.

Even after removing size as a dimension of variability, there were still major differences between school districts in costs incurred for transportation. Attempts to account for these variations were relatively unsuccessful. Of the many variables utilized various measures of pupil density within school districts appeared most consistently as important predictors in the regression equations.

Total Cost Approach

Lack of success with the component cost approach led to consolidation of these costs into a single, total cost figure.[6] Experience with the component costs also suggested that total cost should be expressed on a per unit basis and that various measures of pupil density might be relatively successful in predicting per unit total transportation costs.

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[6]Total cost or total maintenance and operations costs in this context refers to all costs incurred in running the school transportation system except for capital outlays or allowances for bus purchase or physical plant. It refers to the sum of cost components 1 through 4 as listed on p. 36.

Three different density measures were explored:

(1) linear density - pupils transported daily per route mile;

(2) transported pupil areal density - pupils transported daily per square mile of school district area;

(3) pupil areal density - district average daily attendance (ADA) per square mile of district area.

It was found that linear density was the best predictor of per unit total costs. When this was calculated for the entire transportation system, including both regular and special, students an R^2 of .54 was achieved between this density measure and total transportation costs per pupil transported. Other density measures possessed a somewhat lower predictive ability.

CONCLUSIONS FROM THE FIRST SAMPLE

Failure of the Component Cost Approach

It was apparent that the component cost approach was unlikely to be satisfactory. Not only did it fail to achieve adequate predictive models, but a careful consideration of all ramifications exposed a number of other shortcomings:

(1) It would involve several equations with different predictor variables. This would require more arduous data collection both for further evaluation and for eventual implementation. Experience had shown that such detailed data is hard to obtain with accuracy.

(2) It would involve several formulae of non-uniform form. This would be unwieldly to implement and use, and harder to press through the political process to an eventual law.

(3) Parity of the various components between school districts would be particularly hard to establish. Distribution of the transportation dollar between different cost components is a local decision based upon local conditions. It would be difficult to predict and undesireable to control on a statewide basis.

(4) Because of the difficulties of obtaining data, and the local decisions as regards distribution of funds between cost components it would be difficult to establish the financial impact upon the state of a component cost set of formulae.

Separation of Regular and Special Education Transportation

Initial model exploration used cost figures which combined both regular and special education transportation. By law, these are required to be two separate systems. For two major reasons it was concluded that special education transportation should continue to be separated from regular transportation. First, initial model exploration suggested that the per pupil costs of special education transportation are considerably higher than for regular transportation - a situation to be expected on logical grounds. Thus, differentials between school districts in costs per pupil transported could be partly attributed to the proportion of special education to regular students. Separating these categories would remove this source of variability. Secondly, a long, hard struggle had been waged to obtain a separate allocation for special education transportation so a combined formula, no matter how good, would probably meet strong political opposition.

The decision to separate special education from regular transportation had an important impact on cost data reliability, especially for the expanded sample. In all but a very few cases, it was impossible to separate regular transportation costs from special education transportation costs at the district level. This situation had initially mitigated against separation. However, the apparent need to do so necessitated finding some means of assigning a proper portion of total cost to each function in those districts which operated both types of systems. The method chosen split the total cost according to the proportion of total daily route mileage that each system contained. It was felt that cost/mile would be the most uniform variable that was available across both systems. Conversations with administrators in districts which operate both types of systems supported this view.

General Format of the New Formula

It was concluded from the initial model exploration that the new formula should take the form of an equation predicting total

maintenance and operations costs per some relevant unit from density measures of the school district. This involved three decisions:

(1) to utilize one total rather than several component costs,

(2) to utilize a per unit rather than an absolute total cost measure, and

(3) to utilize density variables as predictors of per unit total cost.

Reasons for utilizing a total rather than a component cost model were outlined above and those for the other decisions are discussed below.

Utilization of a per unit rather than an absolute cost measure was based upon several factors. First, it emphasizes differential costs experienced by school districts operating transportation systems of similar magnitude. Much of the dissatisfaction with the current formula derived from its failure to incorporate these differentials. Secondly, the overall school funding program, of which the transportation formula was a part, was stressing a "weighted pupil" approach to state assistance in education. Under this approach state monies are allocated to districts based upon the differential needs of individual pupils within the district. If it were based upon costs per pupil the transportation formula would parallel other segments of the proposed funding program.

The emphasis upon densities as appropriate predictors for transportation cost had four bases. First, densities provide an overall indication of the spatial distribution of students within the school district, and this distribution will have a marked impact upon the distances which must be covered to collect students and hence upon the overall transportation costs. Second, densities provide some indication of the nature of the community within which school districts are located. Third, densities can be calculated from data which is readily obtainable from school districts, and furthermore, this data is not greatly dependent upon the precise nature of the transportation system operated by a school district. Fourth, structuring of the local system can be left to local discretion, which can tailor the transportation system to meet the particular circumstances in a given school district.

CHAPTER SIX: SPECIFICATION OF FORMULA

Analysis of the detailed sample suggested the general form of the model for predicting school district transportation costs. Based upon this, data was collected for an expanded sample incorporating approximately one-third of the school districts engaged in transportation in the state. This data set was utilized to determine the final model and associated formula for allocating state funds to local districts.[7] In the sections which follow some general relationships between the variables collected for the expanded sample are discussed and then used to determine a predictive equation for maintenance and operating (M & O) costs of regular transportation. Models for special education transportation and bus replacement are then outlined.

CORRELATIONS BETWEEN VARIABLES

Correlations between some of the variables collected in the expanded sample are shown in Table 13. Several conclusions can be drawn from this matrix. First, there are high positive correlations between total transportation cost and both total miles and pupils transported. This illustrates the predominance of size as the factor determining transportation system costs. Also note that pupils and miles are themselves highly correlated.

The correlations between per unit costs (transportation cost per pupil and per mile) and the corresponding measures of absolute system size indicate scale economies exist if per unit costs decrease with increasing system size. This is apparently the case for transportation cost per pupil since it correlates negatively with total pupils transported ($r = -.285$) and number of miles driven ($r = -.175$).

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[7] Details of the data are given in Chapter 2.

TABLE 13. CORRELATION MATRIX FOR SELECTED DATA FROM TABLE 7

VARIABLE NAME	COST/ PUPIL	COST/ MILE	PUPILS	MILES	LINEAR DENSITY	PARDEN	TOTAL COST [b]
COST/PUPIL	1.000	-.188	-.285	-.175	-.522	-.193	-.189
COST/MILE		1.000	.306	.108	.697	.475	.347
PUPILS			1.000	.913	.387	.499	.945
MILES				1.000	.140	.318	.933
LINEAR DENSITY					1.000	.507	.277
PARDEN[a]						1.000	.442
TOTAL COST [b]							1.000

[a] Pupil Areal Density

[b] See Footnote 6 for definition

A final point to note is the fairly high correlation between unit costs and linear density. The negative correlation with cost per pupil suggests that as linear density increases fewer miles are run for each student transported and cost per pupil are thus reduced. Ths positive correlation with cost per mile suggests that as linear densities increase the higher load factors and increased stop and go driving force cost - per-mile up.

Plots of the physical data against the cost data suggest that most of the relationships discussed above are non-linear in form. This indicates that the predictive relationships between the variables are stronger than is indicated by the values in Table 13, which assume a linear form.

MODEL FORMULATION FOR REGULAR TRANSPORTATION MAINTENANCE AND OPERATION

Criterion Variable

Given the conclusion derived from the initial model exploration that the criterion, cost-measuring variable should be in a per unit form (see page 39), four possibilities existed:

(1) transportation costs per pupil,
(2) transportation cost per mile,
(3) transportation cost per pupil per mile, and
(4) transportation cost per bus route.

Cost per route was eliminated from further consideration due to the desire to avoid direct route-related funding for reasons expressed in Chapter 4. Cost/pupil/mile was most heavily favored at the outset. Preliminary analysis had shown that pupils transported daily and daily route miles were the two biggest factors of variability in total cost. It was hoped that elimination of both would yield a unit cost quite accurately predictable with densities. There are two drawbacks to this unit cost however. First, Table 13 shows that pupils and miles themselves are very highly correlated ($r = 0.913$). Thus, removing the effect of one from total cost by division essentially removes the effect of the other. Also, if cost/pupil/mile is the unit cost predicted by the formula,

then the cost allocation for the district would be obtained by multiplying this unit cost by the number of pupils transported daily and the number of daily route miles. This arrangement would be an incentive for inefficiency, as more miles would mean more money. Thus, more miles than necessary might be built into the system. Finally, because data was available only for total vehicle miles and number of students transported independently, a true measure of student-miles transported could not be obtained. To do so would require knowledge of how far each individual student was transported. This information was not possessed by the school districts.

Of the remaining two unit costs, cost per mile has higher correlations with both linear density and pupil areal density than cost per pupil (Table 13). Unfortunately, it also suffers from the problem discussed above, being an incentive for inefficiency. Cost per pupil can be argued to be more "job-related". Transporting a given number of pupils is the point of the whole process--miles traveled are incidental to accomplishing that aim. Cost/pupil is also the criterion variable in some of the formulae used by other states. Thus, this unit cost was utilized as the dependent variable.

Independent Variables

The following predictors were considered:

(1) pupils transported daily,
(2) daily route miles,
(3) linear density,
(4) transported pupil areal density, and
(5) pupil areal density,

Daily route miles was eliminated from consideration almost immediately. If a positive relationship existed with costs per pupil this variable would provide an incentive for inefficiency by encouraging additional route miles to be run. A negative relationship would indicate certain economies of scale which are better handled through the pupils transported variable, given that the cost variable was expressed on a per pupil basis. All of the remaining variables were analyzed in the course of model exploration.

Segmentation

A segmentation process which divided the school districts into internally homogeneous groups based upon a given criteria was also undertaken. Segmentation accomplishes several things. By separating districts into groups with similar cost problems or situations it allows more accurate predictions of costs within each segment or group than is possible with one model for the whole state. It also emphasizes the formula's attempt to incorporate differences between school districts in their transportation situation. Failure of the present formula to achieve this is a constant source of criticism. The process of segmentation requires selection of an appropriate factor or variable on which to differentiate districts and then determination of boundary values based on this variable for the groupings.

Pupil areal density (PARDEN) was considered to be the most appropriate variable upon which to differentiate school districts. PARDEN is an indicator of the relative spatial distribution of students within a school districts. It is based upon all students in a district, unlike linear density and transported pupil areal density, which are based upon students actually transported. The number of students transported is a local decision since districts are not required to transport even eligible students (that is, those living more than two miles from their school), and they may transport ineligibles (those living within two miles), although this transportation is not eligible for state aid. Thus, PARDEN is an indication of the spatial distribution of students which is not "muddled" by varying local decisions.

In addition, PARDEN is an indicator of the characteristics of the community within which the district is located. In general, higher PARDEN levels indicate urban districts and lower levels suggest rural areas. From the detailed cost data reviewed in Chapter III differential costs between urban and rural districts. For instance, bus drivers' salaries, which are the largest single component in maintenance and operating costs (Table 5), are associated with PARDEN (r=0.564). The indication is that PARDEN reflects local cost differentials associated not only with

spatial distribution of students but also with the type of community within which the school district is located. Consequently, it is an appropriate variable upon which to base segmentation.

The variables most successful in predicting costs per pupil were considered to be the most appropriate factors to use in determining boundary values for district groupings on PARDEN. PARDEN segments would carry their pupil distribution significance no matter where splits were made in the PARDEN continuum. Thus, the problem of determining appropriate groupings becomes one of determining the best splits for purposes of predicting local costs. Two possibilities were apparent. The most obsious was to derive PARDEN segments so that each had districts with homogeneous costs per pupil. These segments would then be groupings with similar cost problems or situation. However, reported costs per pupil were subject to considerable error, as indicated in Chapter 2. Thus, the segments obtained may have been an artifact of errors in the cost data. The second possibility - the one actually utilized - was to derive PARDEN segments so that each would contain districts relatively homogeneous with respect to the predictor variables utilized in the final cost prediction formula. Theoretically, use of predictors for segmenting PARDEN should derive the groupings, based upon relatively reliable data, of districts with the most similar cost problems within PARDEN segments. Additionally, utilization of predicted cost (by means of predictor variables) rather than actual cost emphasized a value judgement inherent in utilizing a formula - namely, that predicted rather than actual costs are those which ought to be occurring.

It should be emphasized that other approaches to segmentation may be used in lieu of the method outlined here. For instance, segmentation could be based upon a more subjective classification of school districts into rural, suburban and central city if it were felt that these were likely to reflect major cost differentials. Even if PARDEN is retained as the most appropriate variable upon which to base segmentation, other methods could be used to determine appropriate groupings on this variable. This might be achieved by simple inspection for major breaks in the continuum. Alternatively, cost per pupil could be used as suggested above.

A technique termed Automatic Interaction Detection[8] was utilized to determine appropriate segments on the PARDEN variable based upon linear density (LD) - the predictor variable finally chosen for the model. This technique proceeds through a series of steps each of which asks "what single, two-way split on the PARDEN variable will account for the greatest amount of variability in LD?" After a split has been determined the question is repeated for each of the resulting groups.

This analysis yielded six significant groupings (Figure 2). The first split divided PARDEN at 20.0, yielding groups with 68 data points on the high end and 263 data points on the low end. On the top branch (above 20.0), the second split occurred at a PARDEN value of 60.0, with 42 data points in the upper range and 26 data points in the lower range. Both the low N's and a small increase in R^2 precluded any more splitting on the upper branch. The lower branch (20.0 and below) split the second time at 3.0. Group N's of 144 for the upper range and 119 for the lower range were realized. Tertiary splits occurred at 8.0 on the upper branch and 1.5 on the lower branch, yielding modest R^2 increases.

MODEL ESTIMATION FOR REGULAR TRANSPORTATION MAINTENANCE AND OPERATIONS

Plots of the predictor variables against the criterion variable, cost per pupil, indicated non-linear relationships in each case. Plots of log-log and semi-log transformations (Figures 3-10) suggested relationships existed of the form

$$\ln C/P = a + b \ln PRE \qquad (1)$$

or

$$\ln C/P = a + b\, PE \qquad (2)$$

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[8]John A. Sonquist, Elizabeth Lauh Baker and James N. Morgan. Searching for Structure, Revised ed. Survey Research Center, Institute for Social Research, The University of Michigan, Ann Arbor, Michigan, 1973.

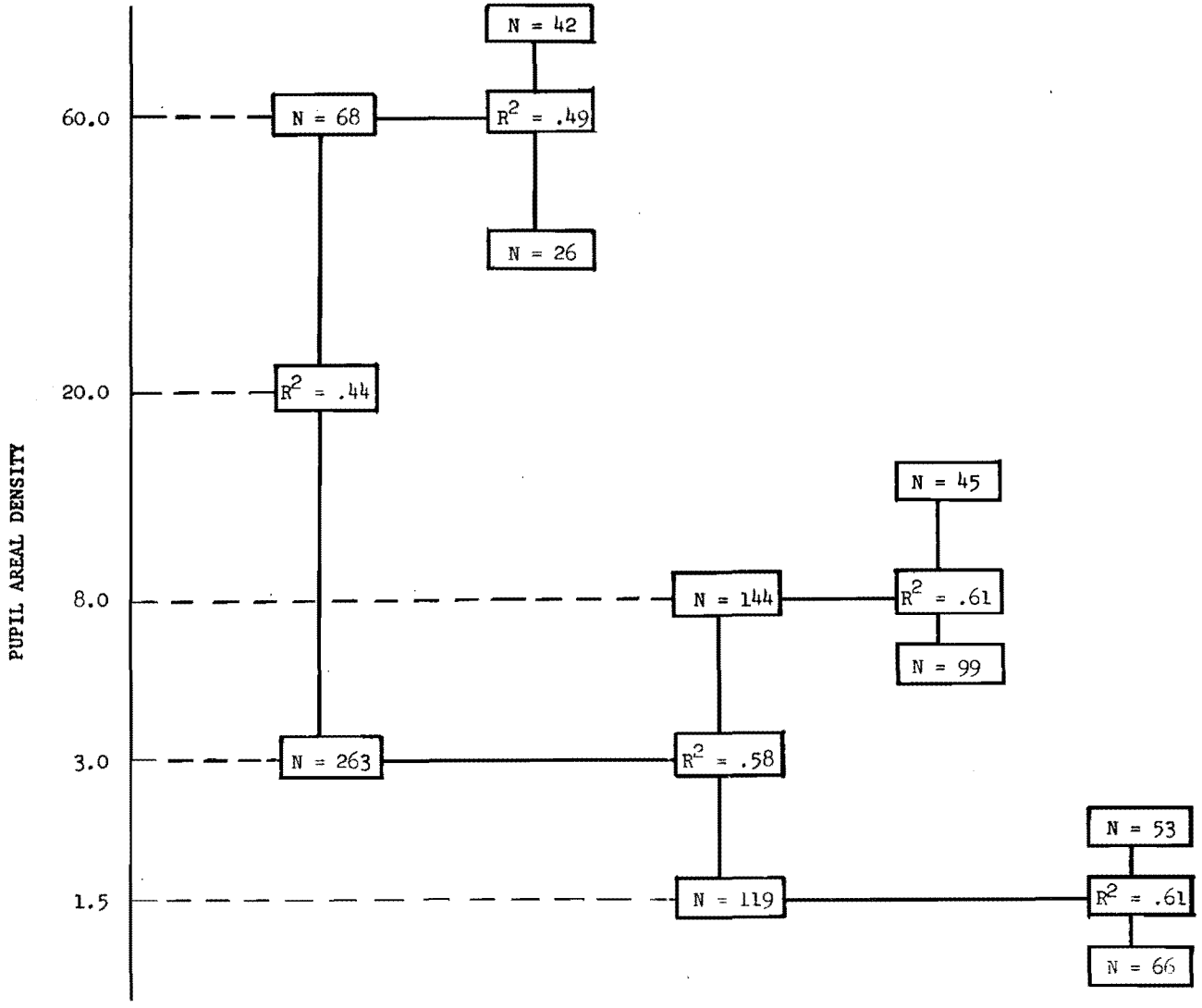

FIGURE 2. SEGMENTATION OF PARDEN BASED UPON LINEAR DENSITY

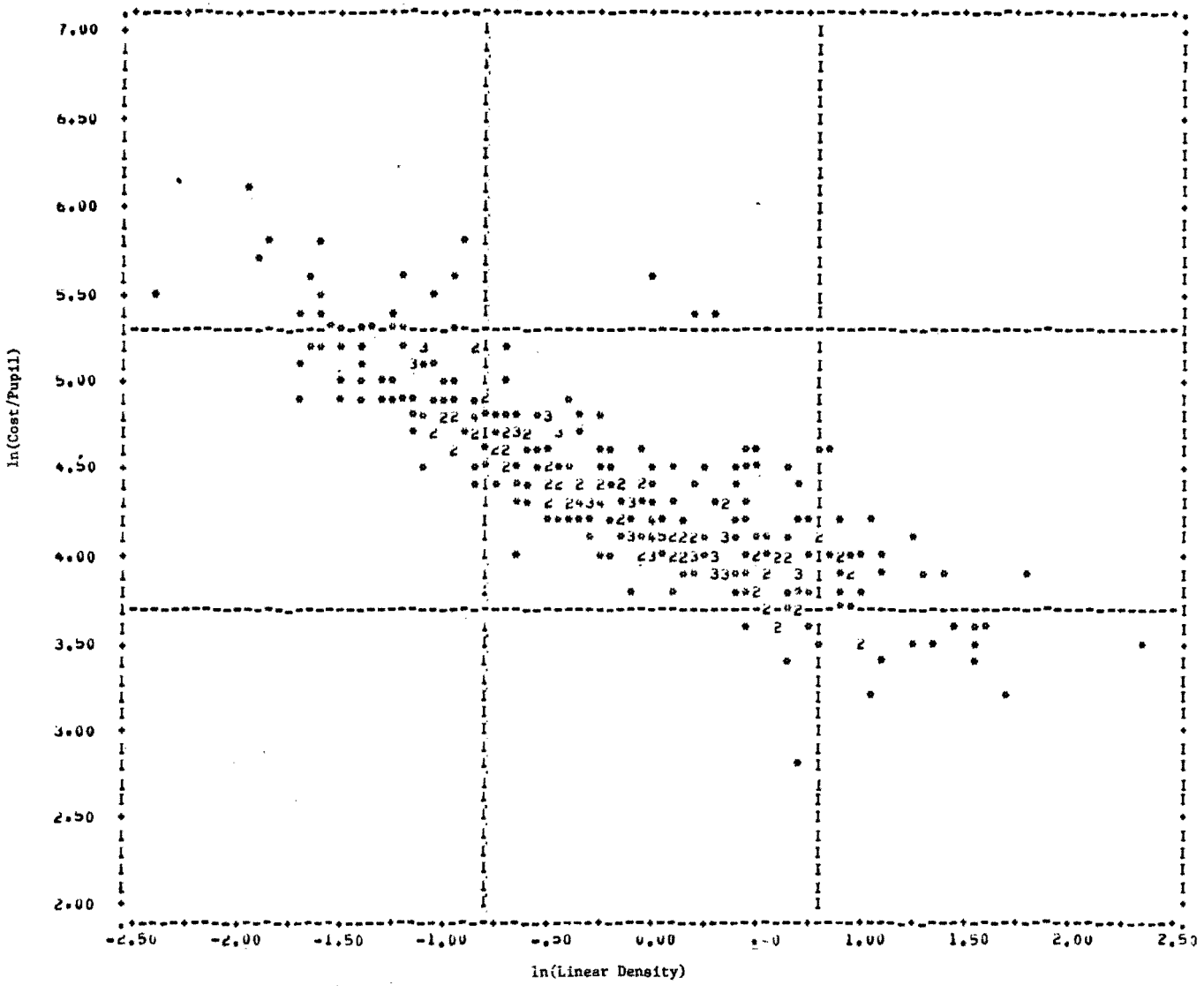

FIGURE 3. LOG-LOG PLOT OF COST/PUPIL VERSUS LINEAR DENSITY

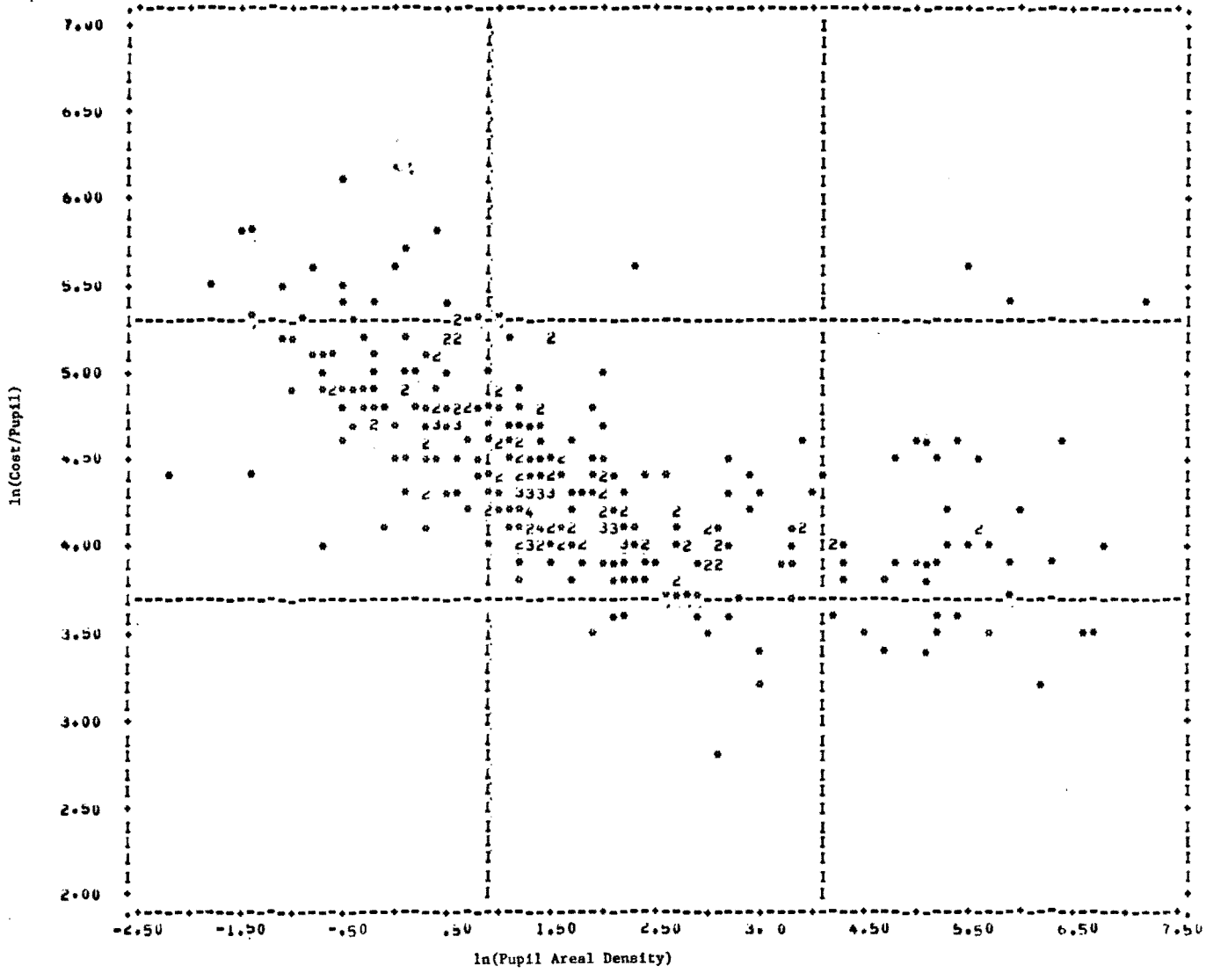

FIGURE 4. LOG-LOG PLOT OF COST/PUPIL VERSUS PUPIL AREAL DENSITY

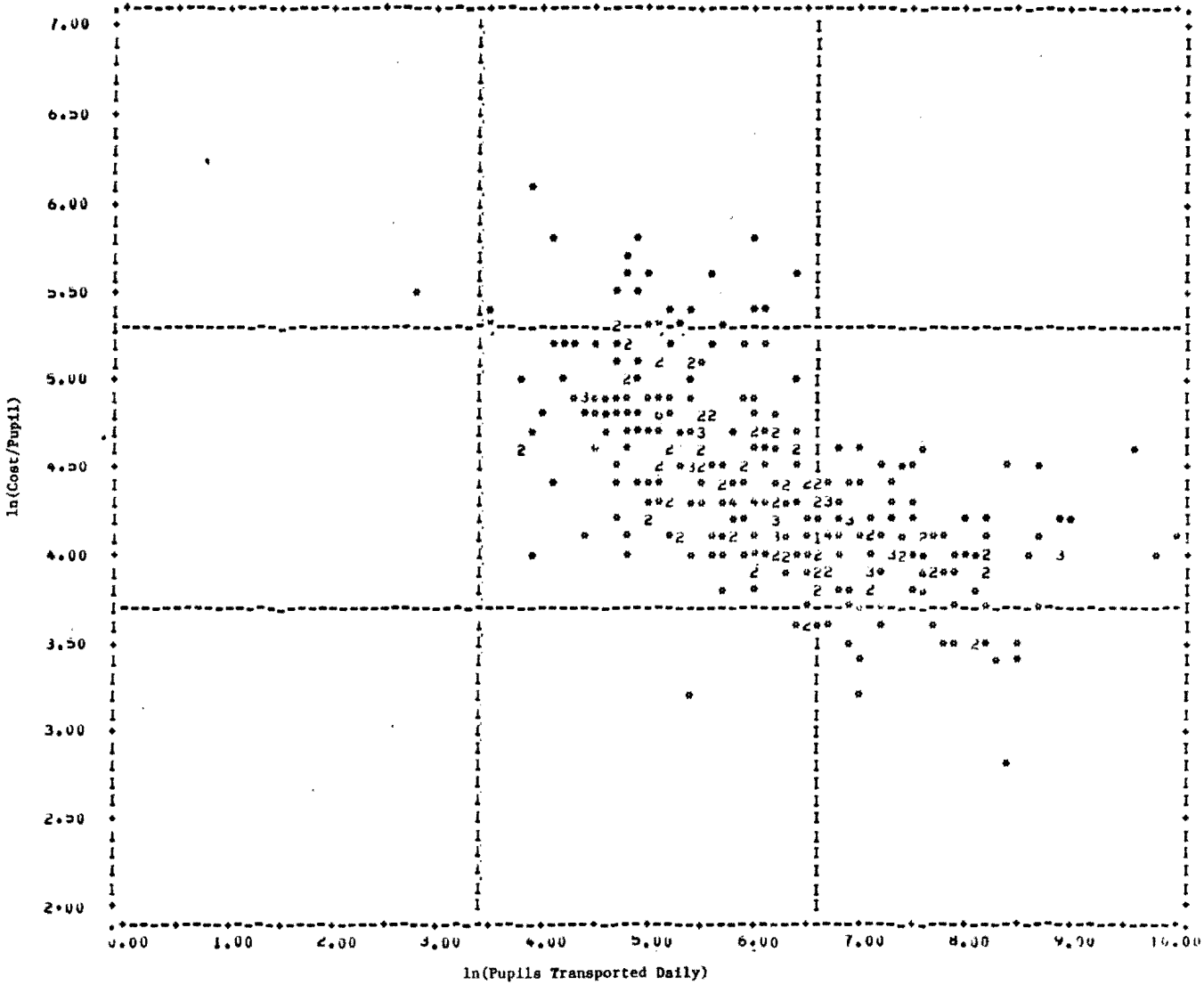

FIGURE 5. LOG-LOG PLOT OF COST/PUPIL VERSUS PUPILS TRANSPORTED DAILY

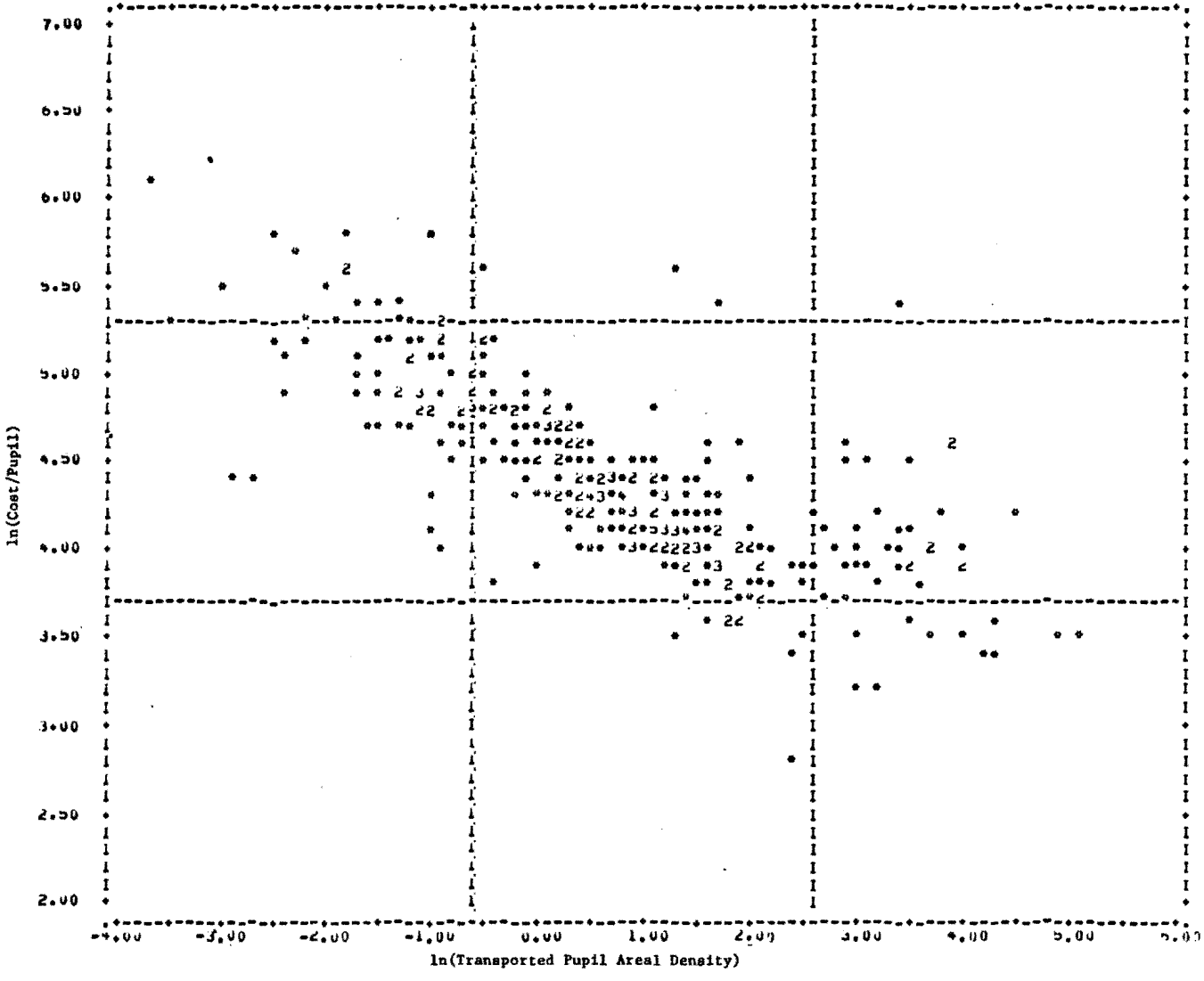

FIGURE 6. LOG-LOG PLOT OF COST/PUPIL VERSUS TRANSPORTED PUPIL AREAL DENSITY

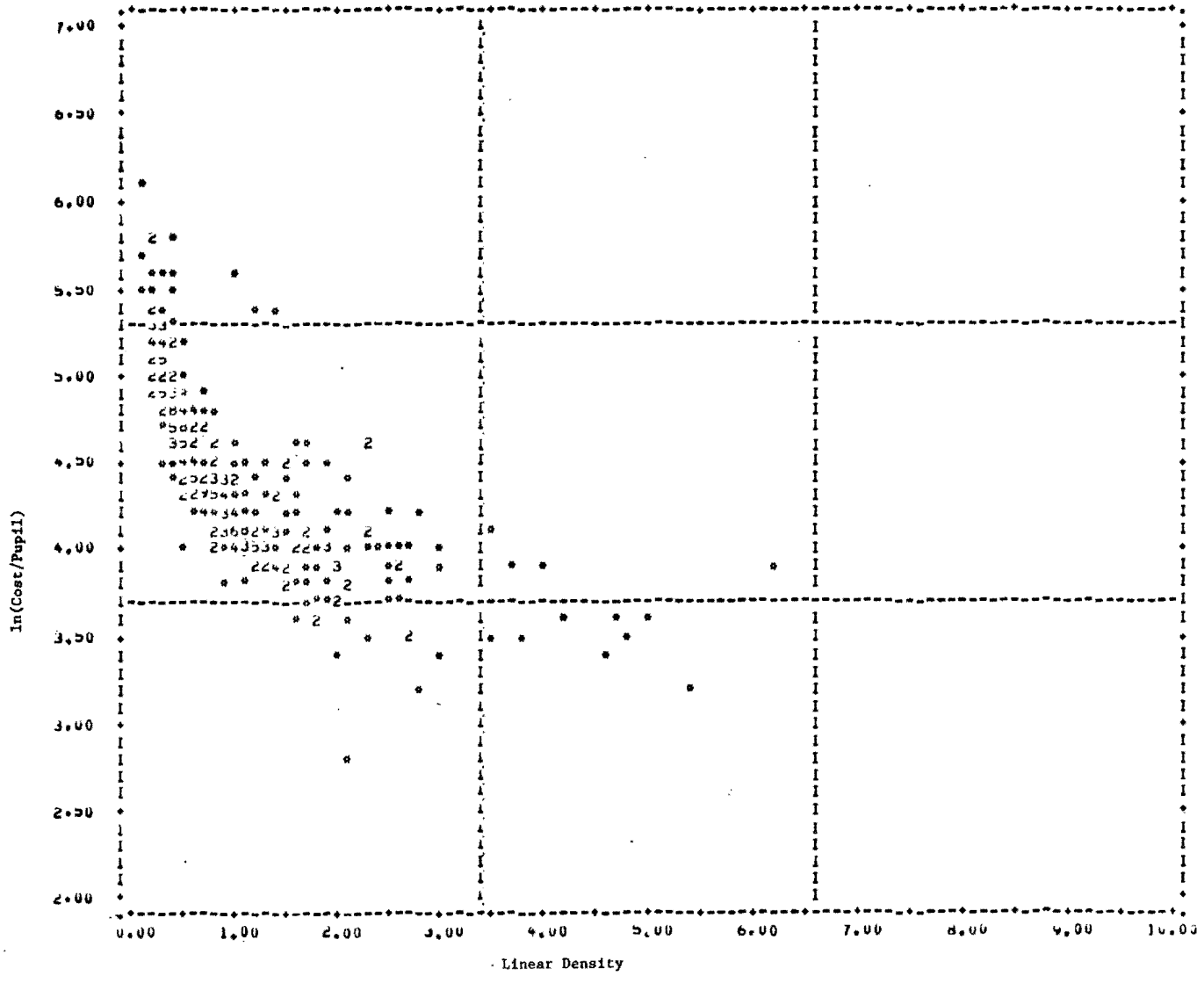

FIGURE 7. SEMI-LOG PLOT OF COST/PUPIL VERSUS LINEAR DENSITY

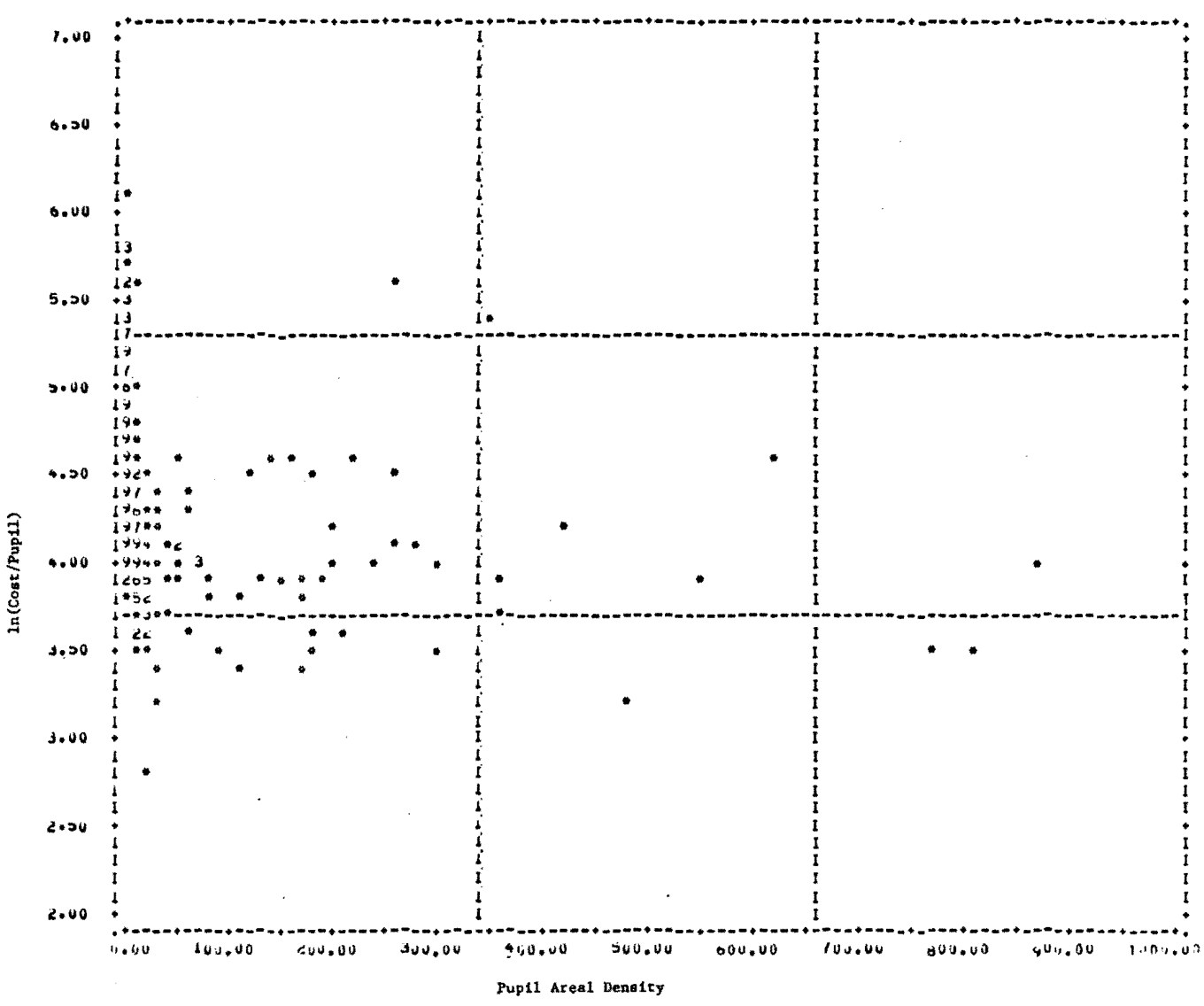

FIGURE 8. SEMI-LOG PLOT OF COST/PUPIL VERSUS PUPIL AREAL DENSITY

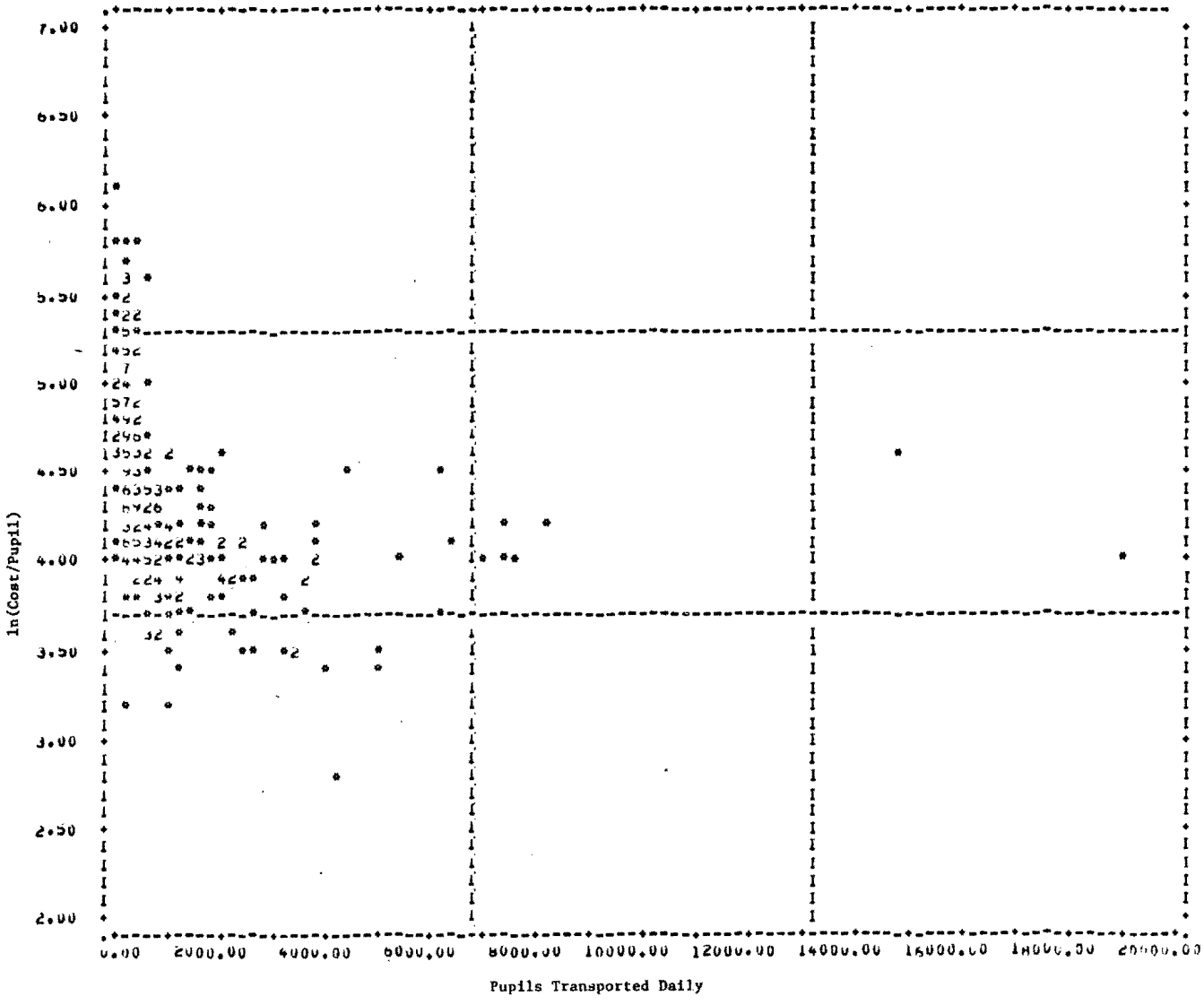

FIGURE 9. SEMI-LOG PLOT OF COST/PUPIL VERSUS PUPILS TRANSPORTED DAILY

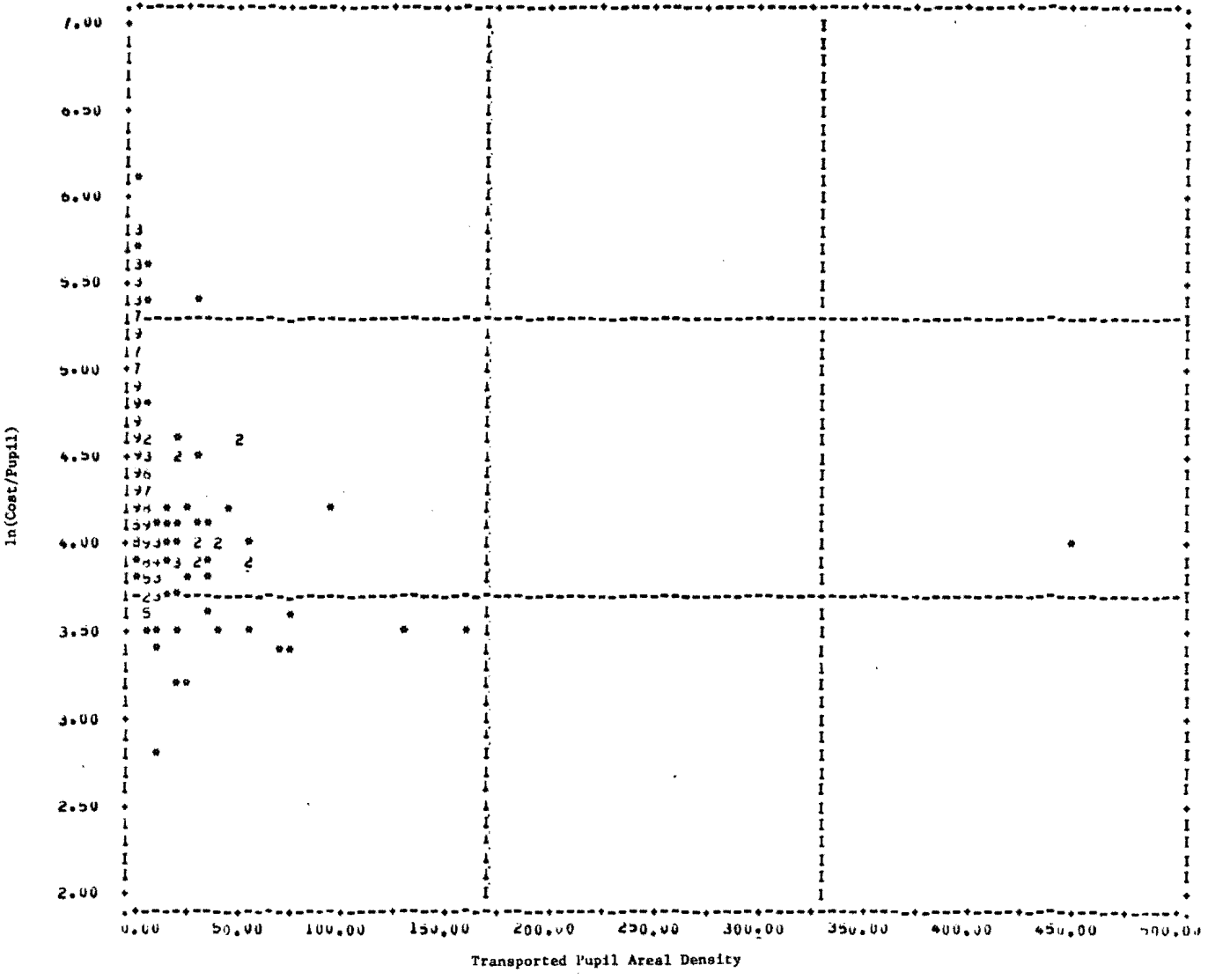

FIGURE 10. SEMI-LOG PLOT OF COST/PUPIL VERSUS TRANSPORTED PUPIL AREAL DENSITY

for the log-log and semi-log relationships respectively, where C/P = cost per pupil, a = intercept, b = slope, PRE = the predictor variable in question. Both of these equations are viable candidates for analysis by linear regression. The transformed equations take the form

$$C/P = a\ PRE^{b} \tag{3}$$

for the relationship of equation 1, and

$$C/P = a\ e^{bPRE} \tag{4}$$

for the relationship of equation 2.

Consequently, two models were examined for each segment:

$$\ln C/P = a_0 + a_1 \ln LD + a_2 \ln PUPILS + a_3 \ln TPARDN \tag{5}$$

and

$$\ln C/P = a_0 + a_1 LD + a_2 PUPILS + a_3 TPARDN \tag{6}$$

where

C/P	=	cost/pupil
LD	=	linear density
PUPILS	=	pupils transported daily
TPARDN	=	transported pupil areal density
a_i	=	regression coefficients

When linear density (LD) was in the equation the contribution of transported pupil areal density (TPARDN) was insignificant in all segments. Presumably, segmentation on pupil areal density (PARDEN) and prediction with LD accounted for all of the information TPARDN could provide. Thus, TPARDN was dropped from the equation. Pupils transported daily (PUPILS) was statistically significant in each case but contributed little to explained variance (R^2) and thus to predictive ability. This variable's maximum contribution to R^2 in any of the segments was 0.016. This small

contribution was not considered to be worth the added effort and complexity which its inclusion in the formula would involve; thus it was omitted. It was also found that Equation 5 possessed a higher predictive ability, based on an analysis of the residuals and R^2 values, than Equation 6.

Consequently, the equation finally chosen to predict maintenance and operating costs of regular pupil transportation was

$$C/P = aLD^b$$

where

C/P = cost/pupil (predicted)
a = intercept of the regression line
LD = linear density (actual)
b = slope of the regression line

The predictive equations for each of the six segments are given in Table 14. A detailed analysis of the predictions achieved by this equation relative to costs actually incurred is carried out in the next chapter.

SPECIAL EDUCATION TRANSPORTATION

There are two viable alternatives for handling special education transportation : (1) a formula similar to the regular transportation formula or (2) continuation of a flat grant per pupil at a level more reflective of existing costs. Both possibilities were explored by this research.

Of the 331 districts in the sample, only 68 of them ran special education transportation systems during the 1972-73 school year. As this sample was small to begin with, and as the data was quite dubious, segmentation was not attempted. However, this should not be construed to imply that it was not considered relevant to special education transportation. A simple regression was performed on the entire sample of 68, with the results

$$C/P = 107.5\ LD^{-.8239} \qquad (7)$$

TABLE 14. PARDEN GROUPS AND THEIR COST FORMULAE

GROUP NO.	PARDEN RANGE	EQUATION[a]	R^2	SAMPLE N	ESTIMATED STATE N
1	0 - 1.5	$C/P = 48.2LD^{-.7649}$	0.5483	66	241
2	1.5 - 3.0	$C/P = 49.4LD^{-.7369}$	0.5716	53	180
3	3.0 - 8.0	$C/P = 53.3LD^{-.5801}$	0.5457	99	309
4	8.0 - 20.0	$C/P = 51.2LD^{-.7532}$	0.5314	45	131
5	20.0 - 60.0	$C/P = 66.5LD^{-.8505}$	0.3898	26	84
6	60.- and above	$C/P = 71.1LD^{-.7405}$	0.5696		93

[a]These equations provide predictions of total maintenance and operations costs per pupil transported per annum.

$$R^2 = 0.6929$$

The R^2 for this equation was fairly high, indicating good possibilities that one model can, in fact, handle the entire state.

It must be remembered that the data for special education transportation is extremely suspect, since special education transportation costs were derived using a mileage ratio between regular and special education systems. As there is no mandate for, and thus no machinery to accommodate, records of special education mileage, this data vector may also be subject to severe error. At best, the above points to the possibility that the formula used for regular transportation will also work for special education transportation. Confirmation of this must await better data.

The other approach to funding special education transportation is to continue the present flat grant per pupil transported. The problem here is to determine the appropriate level for this grant. A possibility is to use the average actual cost/pupil for the 68 districts in this sample. This is about $260.00 but is subject to the same errors of cost derivation as the formula. No other guidelines are presently available to help in determining the proper level of this grant. Again, a realistic determination must await a cleaner set of data.

BUS REPLACEMENT MODEL

A model was also constructed to determine an annual bus replacement allotment for each district. This model provides values for four items:

(1) the number of buses a district is eligible to claim for replacement funding,

(2) an annual depreciation allowance based upon the expected useful bus life,

(3) the capacity of the buses to be funded, and

(4) the applicable bus price for each capacity range.

An approach similar to that used for predicting maintenance and operating costs was not possible. The approach there relied upon

predicting annual costs from variables descriptive of the school district. This assumes consistent annual costs. Buses, which involve major capital outlays, are not generally purchased on a consistent annual basis, nor is a depreciation allowance included in many school budgets or other records. Moreover, if actual bus purchases over a relatively long time period are used to indicate bus replacement costs, the data is confounded by expansion or contraction of the bus fleet.

Number of Eligible Buses

The maintenance and operating cost model suggested the possibility that linear density could be used to predict an expected "load factor" (pupils per bus) for each district. The time taken to run routes has an upper limit since students cannot be expected to spend an inordinate amount of time in transit. School districts with low linear density routes would be able to pick up fewer students within this time limit. Thus, low linear densities suggest lower load capacities. On the other hand, districts with high linear densities would be able to pick up more students in the time period, thus suggesting that higher linear densities imply higher load capacities. If linear density successfully predicts load factors, then the predicted load factor for each district can be divided into the actual number of pupils transported daily to arrive at the number of buses allowed for each district.

There are several sources of uncertainty in this approach. It is dependent upon the route structure occurring *in situ*. Also, in the next few years, standing riders will have to be eliminated in accordance with federal law. This will tend to drive load factors in high density districts down to a more uniform level (somewhere in the vicinity of 72) irrespective of linear density. Further problems will be addressed in Chapter 7.

Besides LD, PUPILS and TPARDN were explored as predictors of load factor. The form of the equation fitted by linear regression was, as before

$$\ln LF = a_0 + a_1 \ln LD + a_2 \ln PUPILS + a_3 \ln TPARDN \qquad (8)$$

where

LF = load factor (pupils/bus)

LD = linear density

PUPILS = pupils transported daily

TPARDN = transported pupil areal density

a_i = regression coefficients

Including all terms this model had an R^2 of 0.8592, but LD alone accounted for 0.8043 of this. For simplicity and form parallel to the maintenance and operation equation, a model with LD only was chosen to predict LF. The derived equation was

$$LF = 58.9\ LD^{0.06569}$$

where

LF = load factor

LD = linear density

Translation of predicted load factor to number of operating buses for a district is accomplished by dividing the derived load factor into the actual number of pupils transported daily to arrive at a number of buses allowed.

In addition to operating buses, a certain number of spares are required so that service is not interrupted and a proper maintenance program can be maintained. To determine the total number of buses, both operating and spare, a multiplier was applied to the number of operating buses. The value of this multiplier varies with the number of buses. After consultation with school transportation directors in the state concerning the ratio of spares to total fleet which is required to run a good preventive maintenance program, the following schedule was adopted:

Number of Operating Buses	Multiplier
1 - 9	1.30
10 - 19	1.25
20 - 29	1.20
30 and above	1.10

Depreciation

Expert opinion sets average bus life at between eight and twelve years. An argument for using a sliding scale based on average daily bus mileage can be made, but until better data on bus depreciation as it occurs in the field is available, a uniform 10 year life across the the state was used. Thus, the total number of buses determined above was divided by 10 to determine the number of buses to be funded annually.

Bus Capacity and Price

The capacity of the buses to be funded was determined by the load factor derived earlier. It was set at the first standard manufacturers' rated capacity above the derived load factor. At present, these rated capacities are: 18, 24, 36, 48, 54, 60, 66, 72.

Finally, the unit bus cost was determined from the current bid price for the size bus in question as obtained from the State Board of Control, the bus purchasing agent for school districts in Texas. These prices will automatically account for inflation, changing safety equipment, etc.

Annual Allocation for Bus Replacement

An annual allocation for bus replacement was obtained by multiplying the number of eligible buses to be funded annually by the appropriate unit price to determine the total bus replacement allowance for the district. Adding this allotment to that for maintenance and operating, the total transportation allotment for a district is obtained. How well these allotments meet the needs of the school districts of Texas is evaluated in the next chapter.

CONTRACTED TRANSPORTATION

The manner in which school districts are presently economically enjoined in most cases from contracting with local transit authorities was discussed in Chapter 4. It would be desirable for local districts to be free to bargain with any commerical carrier for any deal acceptable to the local district, irrespective of the cost. However, state participation in transportation funding should be limited to that predicted by the

formula on the same basis as districts operating their own systems. The process could operate as follows:

(1) State and local officials determine the form and structure of an efficient school transportation system for the district in question as if the district were to operate the system.

(2) The linear density of such a system is derived.

(3) Payment for maintenance and operation, and for bus replacement, is made on the basis of the linear density of that hypothetical system and the number of pupils transported. (If the commercial carrier is a public transit system which receives federal and/or state monies to purchase buses, the bus allowance should be deleted.)

(4) The local district and the transit authority are then free to structure the system to their mutual satisfaction, with any costs to the district above the determined state allotment coming out of local funds.

There is a second type of contracted transportation, which occurs most commonly in special education transportation. This is private transportation of the pupil by automobile, most often by the pupils' parents. The solution to an equitable payment here is a simple flat cost per mile. Automobile operating costs are fairly uniform across the state and driver time should not be at issue here. Contracting with parents to transport the pupil assumes a willingness to spend the time to drive the child to school and back. Of course, this system would involve determining proper mileage in each individual case. However, present data indicates that only a small number of cases occur in any given district.

SUMMARY

This chapter developed the main components of the proposed formula for allocating funds to local school districts for student transportation. The formula comprises two main segments, with separate consideration being given in each for regular as against special education (handicapped pupil) transportation. Consideration is also given to handling contracted transportation in which school districts contract with independent agencies (either transit companies or parents) to provide pupil transportation.

The two main segments of the formula provide estimates for maintenance and operation (M & O) costs and for bus replacement allowances. The M & O model takes the form of a simple equation which predicts the costs per pupil transported from the linear density (pupils per route mile) of the transportation network. The equation is independently estimated for six groupings of districts based upon their pupil areal density (pupils per square mile of the school district.) The second segment comprises a methodology for determining an annual bus replacement allotment for each district. This involves estimating the number of buses necessary to serve the district, the expected bus life, the capacity of the buses to be funded, and the applicable bus price for each capacity range. The following chapter evaluates these methodologies.

CHAPTER SEVEN: EVALUATION OF NEW FORMULA

Evaluation implies some criteria against which the item in question is judged. While detailed criteria such as those used to evaluate the present formula are valuable, two questions carry the greatest weight in ultimately evaluating the formula:

(1) Does the formula accurately predict the funding needs of Texas school transportation?

(2) What are the prospects that it will continue to yield good predictions over the years?

In the course of answering these two questions the type of detailed criticism which was aimed at the present formula will be directed at its proposed successor. Also considered are questions of ease of implementation.

OPERATIONS AND MAINTENANCE COSTS OF REGULAR TRANSPORTATION

Accuracy of Prediction

The R^2 values for each PARDEN group equation appear to be relatively low (Table 14). This is somewhat an artifact of the low N each sample group possesses but is not a point of great concern. The proof of adequate predictability lies in detailed analysis of cost residuals on a district-by-district basis. These analyses are the subject of this section.

Tables C1-C6, in Appendix C, show the analyses which were performed. Listed are the district names, the PARDEN and LD of each, the actual and estimated cost/pupil, the actual total M and O cost and estimated total M and O cost (obtained by multiplying pupils times cost/pupil), and the total M and O cost residual, both in absolute form and as a percent of actual M and O costs the ultimate evaluator of the accuracy of prediction. Also shown is the percent of the total school district budget expended on school transportation maintenance and operation for 1972-73 and the percent error in total district budget due to the error from actual costs

in the transportation allotment. At the end of each table are exhibited some statistics for the groups as a whole.

Table 15 aggregates some statistics for all the PARDEN groups. Per district errors of total M and O cost range from about 16% to about 26%, with the statewide average being about 20%. An "average" district experiences a dollar error ranging from about $5,000 in PARDEN 1 to about $30,000 in PARDEN 6. Two questions arise: (1) Is this 20% average error likely to continue to persist as the new formula is implemented?; and (2) If so, is 20% an acceptable average error?

Hopefully, the answer to the first question is "no." The unreliability of some of the data has already been pointed out (Chapter 2). The major problem is that auditing procedures in the field are not designed to cope with the concepts involved in this formula, but are aimed at providing the necessary information for the present formula. It is highly probable that official data gathering by TEA for implementation of this new formula will provide better results. It should also be noted that PARDEN 5 and PARDEN 6 contained a high proportion of districts with special transportation systems, so the previously discussed method of dividing costs could be a possible large source of error.

Besides standardization of data, other means of improving the predictability of the formula are available. Although it is expected that segmentation has accounted for much of the variability in local cost factors, standardization of bus drivers' salaries should remove a large part of the remaining variability. The detailed sample showed bus drivers' salaries composing about 45% of the total maintenance and operation budget for transportation. Further reduction in variability could probably be gained from implementation of a standard criterion for determining an efficient school transportation system in any given local situation, a judgement presently in the hands of TEA inspectors. A possible uniform criterion might be computerized routing, now being experimented with by the Austin Independent School District amongst others. Implementation of such a system at a regional level might go far toward eliminating the effect of variable local expertise as it pertains to route structuring.

Although it appears that prospects are good for a reduction of the 20% average error as the formula become operational, what if this is

TABLE 15. SOME MEASURES OF ACCURACY OF PREDICTION FOR THE SIX PARDEN GROUPS

PARDEN Group	Average C/P Error Per District ($)	Average Cost Error Per District ($)	Total of District Absolute Cost Errors ($)	Percent of TC
1	34.300	4,752	313,657	25.6
2	20.209	5,317	281,795	21.8
3	10.643	5,811	575,319	16.9
4	9.052	8,721	392,459	16.3
5	9.981	19,623	510,191	21.1
6	9.088	28,793	1,209,324	22.2
Statewide	---	---	3,282,745	20.3

not realized? Tables C1-C6 show that the error in the total district budget which the error in transportation allotment creates is extremely small. The largest value is 3.57. With possibilities apparent for reduction of even these small amounts, it may be concluded that the errors experienced are not severe.

Temporal Validity

Temporal validity of the new formula is the second major concern of this evaluation. This formula is highly sensitive to geographic-demographic factors, both through the formula predictors and through segmentation. Segmentation also achieves sensitivity to local cost factors. If gasoline price levels hold steady and if inflation of the national economy is brought under control, the formula could be expected to survive perhaps several years without adjustment of the coefficients and exponents, especially if the measures previously discussed are advanced to enforce more uniformity among school districts. At the very worst, the formula derivation process could be repeated each year. The simplicity of the formula would make this a relatively easy task if school districts are required to maintain appropriate records. Implementation of this formula envisions recalculating the coefficients and exponents, and possibly re-deriving the PARDEN groups, for the first few years of its operation. This would be monitored to determine intervals at which reformulation would be necessary.

Another facet of temporal validity is the possibility of changes in eligibility rules. Presently, only students residing more than 2 miles from the school they attend are eligible for state reimbursed transportation. The new formula should be capable of incorporating any reduction in this limit. If the limit is lowered, system-wide linear density should increase due to the proximity of the new riders to their destinations and, in most cases, a higher pupil density in the region close to the school. Due to the decreased mileage required per pupil transported, cost per pupil could be expected to decrease, which is exactly what the formula would predict.

SPECIAL EDUCATION TRANSPORTATION

An analysis of the residuals for the special education transportation formula is shown in Table C7 of Appendix C. Most of the comments made concerning regular transportation are applicable to the special education formula. An expanded data base may even open the possibility of segmentation. The question of a formula versus a flat grant must also be addressed. In general, a formula approach is superior since a flat grant is unable to account for local variability other than the number of pupils transported.

BUS REPLACEMENT MODEL

Table C8 in Appendix C shows how actual load factor compares with predicted load factor on a district-by-district basis and translates each into a number of buses for comparative purposes. With a few exceptions the predictions are quite accurate. Also shown in Table C8 are the predicted bus replacement allotments for each district. One possibility for improving the accuracy of predictions lies in deriving a load factor equation independently for each PARDEN group, a course not pursued by the present research.

The major problem with the proposed bus replacement model occurs in the prediction of load factor using linear density. The actual load factors used to derive the predictive equation are an artifact of the route systems which existed in the field during the 1972-73 school year. One would expect that linear density changes caused by enforcement of the no-standees rule or by implementation of computerized routing would be consistent with changes in load factors, but such an expectation is conjecture at this point. However, the fact that linear density does predict load factor well ($R^2 = 0.8043$) for the sample in hand reinforces this conjecture.

Another problem with the model is that 72 is the maximum capacity bus obtainable irrespective of the predicted load factor. This is the largest standard capacity bus normally used by Texas school districts. In those situations where the load factor is above 72

because of standees, load factor can be expected to be lowered over the next few years and, hopefully, a corresponding change in linear density will reflect this. Where load factors are high due to multi-loop routing or serving of several campuses by one bus, then apparently one bus is all that is needed to accomplish this task no matter how many total pupils are transported by it during its running time. In light of these considerations, not providing funding for predicted load factors over 72 appears to be reasonable.

INSURING EFFICIENCY

In the case of both the maintenance and operation formula and the bus replacement model, a decreased linear density means more money for the district per student transported. A decreased linear density is obtained at the expense of running more miles for a constant number of pupils transported. This aspect of the two models tends to encourage inefficiency in the structuring of a local system. Thus, tight controls on the structuring of each local system may be required to avoid inefficient operation. This would strain TEA in implementing the new system. Of course, if computerized routing were adopted across the state, then a uniform standard of efficiency would be available, but until that occurs another solution must be found.

One possibility is to fund transportation costs on a state-local sharing basis in a manner like that for other allotments under the Minimum Foundation Program (MFP). Currently, if a district is entitled to any aid under the MFP, transportation is funded at 100 percent of the district's transportation allotment before any other allotments are made. All other allotments are funded on a state-local sharing basis. If state-local sharing were applied to transportation, then the local districts would experience a real cost from the operation of their transportation system, even given the adequate level of funding this formula is expected to provide. This would provide a powerful economic incentive for efficiency, alleviating the pressure on TEA to enforce efficient structuring of the local system.

SUMMARY

The proposed formula for maintenance and operations costs of school transportation has adequate predictive power and considerable sensitivity to local cost factors. Prospects are also good for adequate temporal validity. Predicted costs are directly and concretely related to factors causing them. This makes readjustment of predictive ability easy and straightforward should temporal effects so dictate. In accomplishing these tasks, the new formula is free of many of the problems plaguing the present formula. Based on the data in hand the bus replacement model shows promise of equitably funding bus replacement for the districts. Experience with operating both the operations and maintenance model and the bus replacement model will be the final judge of their validity. In the process a methodology for insuring routing efficiency must be incorporated.

CHAPTER EIGHT: FINANCIAL IMPACT

A very rudimentary financial impact analysis of the proposed new formula was performed for this study. It shows the costs which would have been incurred by the state had the new funding system been operative in the 1972-73 school year. These costs are compared with the actual state expenditures incurred during the 1972-73 school year for school transportation in Texas (Table 16). Estimated state expenditures, given the new funding system, would have been double those actually incurred. This result is not surprising since this research was generated by a feeling that school transportation is drastically underfunded in Texas. However, the analysis presented can probably be viewed as a "worst case." Most of the costs estimated for the new funding system are extremely liberal. Reasons for this will be exposed as the impact analysis is examined in the following paragraphs.

REGULAR TRANSPORTATION

Maintenance and operation cost estimates for regular transportation were obtained by extrapolating total costs for each PARDEN group on a statewide basis. An extrapolation factor was derived by dividing the expected statewide number of districts in each PARDEN group by the sample N for that group. The sample group costs were then multiplied by that factor to arrive at an estimate of statewide costs for that PARDEN group.

These estimates are quite liberal for two reasons. First, as pointed out in Chapter 2 the costs of transporting ineligible pupils and the ineligible pupils themselves were included in the estimates because information to allow their exclusion was inadequate. Their presence inflates total cost levels above realistic state allotments for districts which transport ineligible pupils. Second, many of the districts included in this study are "budget balanced," that is, they are sufficiently wealthy to be ineligible for state aid under the Minimum Foundation Program. Again, these costs are additional to actual state expenditures for the year.

TABLE 16. SUMMARY OF FINANCIAL IMPACT OF NEW FUNDING SYSTEM ON THE STATE

ESTIMATED EXPENSES

PARDEN GROUP	STATE N/ SAMPLE N	=	EXTRAPOLATION FACTOR	X	SAMPLE GROUP COST	=	ESTIMATED TOTAL GROUP COST
1	241/66		3.65		1,179,015		$ 4,303,405
2	180/53		3.40		1,273,126		4,328,628
3	309/99		3.12		3,398,852		10,604,418
4	131/45		2.91		2,412,961		7,021,717
5	84/26		3.23		2,360,725		7,625,142
6	93/42		2.21		5,731,294		12,666,160

Total estimated maintenance and operation costs - regular transportation	$46,549,470
Total estimated bus replacement allowance - regular transportation- 1038/331 = 31.4 X 4,194,401 =	$13,170,419
Special education transportation estimated maintenance & operation costs - 18,357 pupils X $260 =	$ 4,772,820
Special education transportation estimated bus replacement allowance- 68/331 = 0.21 X 13,170,419	$ 2,765,788
SUBTOTAL	$67,258,497
Private contracted transportation estimated allowance- 0.001 X Subtotal =	$ 67,258
Total estimated state expenses for reimbursable school transportation	$67,325,755

ACTUAL EXPENSES

Actual regular transportation expenditures	$26,747,224
Actual special education transportation expenditures	$ 2,797,545
TOTAL Actual expenditures	$29,563,126
Excess expenditure due to use of new funding system	$37,762,629
TOTAL estimated expenses under new system as a percent of actual expenditures	227.7%

An estimate of bus replacement total cost for regular transportation was obtained in a manner similar to that for maintenance and operation costs. From Table C8, the estimated bus replacement cost total for the 331 districts included in the analysis was linearly extrapolated to 1,038 districts, the total estimated number of transporting districts in the state. Again, this is likely to be a liberal estimate for the same reasons as outlined for maintenance and operation costs.

SPECIAL EDUCATION TRANSPORTATION

Special education maintenance and operation costs were estimated by multiplying the total number of special education pupils claimed for transportation funding (18,357) by the previously suggested flat rate of $260/pupil. There is no way to tell if this estimate is liberal or conservative compared to the money that the linear density formula would provide.

Special education bus replacement was not considered earlier, but it is feasible that it could be funded in a manner similar to that for regular bus replacement, and this was assumed for the analysis. It is certain that an extremely liberal estimate was obtained by using a proportion of the total state regular bus replacement cost estimate equal to 68 (the number of districts in the sample with special education transportation systems) divided by 331 (the total number of systems in the analysis.) Special education transportation systems are very rarely as extensive as regular systems, making this method of estimation quite liberal.

CONTRACTED TRANSPORTATION

No method was available for estimating private contracted transportation costs under the new system. A breakdown of actual expenditures for 1972-73 showed that private transportation accounted for less than one-tenth of one percent of the total. It was assumed this situation would continue, so one-tenth of one percent of the total estimate for regular and special education transportation costs was added to that total.

SUMMARY

The above description of the analysis method should demonstrate conclusively that cost estimates for the new funding system are liberal. This "worst case" estimate is 227.7 percent of the present state expenditures. That is, over two and a quarter times as much money would have been disbursed by the state for student transportation had the proposed new formula been in operation in 1972-73. Can the state afford this level of funding for school transportation? That is a value judgement for the legislature to pass upon. Presently, costs are being borne by local school districts. However, when clean data is input into the models and realistic costs are determined, the expense of an equitable, workable, realistic school transportation funding system will be less severe than appears here.

CHAPTER NINE: CONCLUSIONS AND RECOMMENDATIONS FOR LEGISLATION

Many varied ideas on handling state funding of school transportation have been advanced through the course of this report. The main conclusions are presented here, along with recommendations for further study. These conclusions are also translated into recommendations for legislation.

CONCLUSIONS FROM RESEARCH

The main conclusion from this research is that a proper function of linear density can predict cost per pupil of school transportation with adequate accuracy. It is recommended that proper data collection through official Texas Education Agency channels be carried out statewide and that the analyses outlined in this research be repeated to confirm this conclusion.

A second, but perhaps no less important, conclusion of this research is that segmentation of the school districts in the state based on areal density of the entire pupil population can enhance the ability of the basic formula to predict local costs. It was also concluded that, given the theoretical relationship between linear density and local costs, using linear density as the criterion of this segmentation yields the areal density groupings which most definitively account for variations in local costs. It is also recommended that the six groups of districts defined by this research be verified once proper data is obtained for the entire state.

An extensive new data base is needed to intelligently decide how to fund special education transportation. It appears that the same linear density formula which would determine funding for regular transportation could adequately determine special education transportation funding. Whether or not this is so, and whether or not segmentation similar to that involved in regular transportation is relevant, awaits the acquisition of the data base.

Replacement bus funding can be adequately handled by the procedure outlined in this report. Though only regular transportation buses were

addressed by this procedure during the research, there is no apparent reason why difficulties should be encountered in applying it to special education transportation. Again, confirmation of this awaits a proper data base for special education transportation. The load factor predictive equation should be verified once statewide data is obtained. Also, the possibility of segmenting this procedure in parallel with the cost/pupil formula should be investigated.

Contracts with non-school transportation authorities to accomplish school transportation should be freed of any restrictions on contract cost by the state. However, funding of such operations by state reimbursement should be limited by application of the basic formula to the local situation. Any additional monies required should come from local sources.

Private contracted transportation by personal automobile should be reimbursed on a cost/mile basis. The appropriate cost per mile to apply should be uniform statewide and is most likely obtainable from existing data bases on automobile operating costs such as that of the American Automobile Association or the U.S. Department of Transportation.

RECOMMENDATIONS FOR LEGISLATION

The following legislation is recommended by this study to implement the procedures for state reimbursement of school transportation which were derived by this research.

(1) A procedure for collecting data relevant to the needs of this funding system shall be implemented by TEA. This task shall include design and execution of the proper auditing procedures to insure the obtaining of accurate data uniformly across the state.

(2) State reimbursement of maintenance and operations costs of regular school transportation costs shall be based upon a formula of the form

$$C/P = a\ LD^{b}$$

where

C/P = annual cost/pupil transported daily

a = a derived coefficient of LD

LD = linear density of the school transportation system in question, defined as pupils transported daily per daily operating mile

b = a derived exponent of LD

Furthermore, school districts in the state shall be divided into relevant groups based upon the pupil areal density (ADA per square mile of district area) of each. The coefficient a and the exponent b in the above formula shall be derived independently for each such group. It shall be the duty of TEA's transportation director to determine the number and makeup of the relevant groups, but their number may not exceed eight. It shall also be the duty of TEA's transportation director to properly derive the coefficient a and the exponent b for each group.

(3) A procedure similar to that above shall be instituted for providing state reimbursement of maintenance and operations costs of special education transportation. At the discretion of TEA's transportation director, segmentation may be included in this process.

(4) Bus replacement costs of regular and special education transportation systems shall be reimbursed by the state according to the following procedures:

(a) Load factor (pupils transported daily per bus utilized) for each district shall be predicted by the following formula:

$$LF = a\ LD^{b}$$

where

LF = load factor of the district (pupils transported daily/number of buses used daily)

a = a derived coefficient of LD

LD = linear density of the school transportation system

b = a derived exponent of LD

(b) The number of buses allowed the district for operation of the transportation system shall be determined by dividing the number of pupils actually transported by the load factor obtained in (a) above.

(c) The total bus allowance for reimbursement funding shall be determined by applying an appropriate multiplier to the number of buses derived in (b) above. TEA's transportation director shall be responsible for determining the relevant multipliers.

(d) the number of buses to be funded annually shall be determined by dividing the average bus life in years into the total bus allowance derived in (c) above. TEA's transportation director shall be responsible for determining the appropriate average bus life in years.

(e) The capacity of the buses to be funded for a given district shall be determined by the load factor derived in (a) above. The applicable capacity shall be the next standard capacity bus above the derived load factor from a list of standard manufacturers' rated capacities. The standard capacities to be included on this list is at the discretion of TEA's transportation director.

(f) The appropriate price for each standard capacity bus shall be the current bid price obtained by the State Board of Control.

(g) The bus reimbursement allotment shall be determined by multiplying the price obtained through (e) and (f) above by the number of buses obtained in (d) above.

(h) TEA's transportation director shall be responsible for determining the coefficient $\underline{a}$ and the exponent $\underline{b}$ for the formula in (a). He shall also be responsible for determining the relevance of a segmentation parallel to that for the maintenance and operation formula for the purposes of deriving load factor.

(5) TEA's transportation director shall determine a currently appropriate cost/mile for automobile operation in the state. Private pupil transportation by automobile shall be reimbursed at this rate. The superintendent of each district shall be responsible for reporting the annual number of miles to be reimbursed.

(6) Where school transportation is accomplished by contract with a public carrier, the following procedure for determining state reimbursement will be followed:

(a) TEA's transportation director shall determine the structure of an efficient school transportation system for the district involved.

(b) The linear density of such a system shall be obtained and used to determine reimbursement allotments for maintenance and operations and for bus replacement. This shall determine the level of state reimbursement.

(c) The district shall be free to contract with the public carrier at any price level.

(d) If the public carrier in question receives public monies in the form of federal and/or state grants for the purchase of their buses, bus replacement allotments shall not be paid to the contracting district in such a case.

(7) TEA's transportation director shall be responsible for insuring efficient structuring of all local school transportation systems for the purposes of obtaining their linear densities. Criteria for determining efficiency shall be at the discretion of TEA's transportation director. Each district shall be charged with economical operation of its system, but it is not enjoined from altering its system structure from that approved by TEA in order to accomplish local purposes (e.g., transportation of ineligible pupils.) Careful records shall be kept by the district to enable determination of additional costs due to alteration of the system.

(8) TEA's transportation director shall be responsible for monitoring the entire reimbursement system to insure its continued temporal validity. He shall be responsible for determining relevant intervals at which all coefficients, exponents and segmentations shall be revalidated.

(9) All transportation allotments shall be included as part of the Minimum Foundation Program and shall be reimbursed by the state on the same basis as all other school district entitlements.

The above set of recommendations for legislation will effectively implement the system derived by this research but leave wide latitude in detailed structuring of the system, necessary because of the uncertainties inherent in this research. Also, as times change, the relevance of the detailed structure presented in this report may decrease, and the latitude provided by this legislation may be needed to restore validity to this procedure.

APPENDIX A

DATA COLLECTION INSTRUMENTS

FIGURE A1

TEXAS EDUCATION AGENCY
Division of Administrative Services
Transportation Section

Co.-Dist. No.	Name of District	County

1974-75 PUPIL TRANSPORTATION REPORT

General Instructions

County unit systems may file a composite report if transportation funds for the current year are being allocated on a county unit basis.

In filling out this report the Superintendent should have available his copy of regulations governing school transportation in Texas, the Handbook for Local School Officials, 1967 edition, Bulletin 671. Other detailed information is published in the Texas Education Agency Bulletin 611, Public School Transportation.

Please begin the preparation of your report at the top of page 3. No portion of this front page summary may be completed until all other pages of this report have been finished.

SUMMARY REPORT

1. Write here your "total allowable" for all regular bus routes that have operated for the entire school year. This is the "total allowable" taken from page 5, item 7. $_____

2. Allowable for all routes that operated less than nine months. This is the total of such routes reported on page 4. $_____

3. Total approved cost for all routes with fewer than 15 eligible pupils. This total is derived from the last line on page 5. $_____

4. Formula allowable. (Total of above items 1, 2, and 3.) $_____

LEAVE BLANK. THIS SPACE RESERVED FOR STATE DEPARTMENT OF EDUCATION USE.

5. Payment for eligible pupils who are transported on buses operated by non-foundation schools. $_____

6. Less deduction for eligible pupils who reside in non-foundation program districts. $_____

7. Final allocation total. $_____

---

8. I have used the following method to determine the Formula Capacity (Check a, b, c, d, e, or f):

   a. Average of last school day in each of first five months. _____

   b. Average of last school day in each of first three six-week periods. _____

   c. Average of last school day in each of first two nine-week periods. _____

   d. Number of eligible bus pupils first Monday in February, 1975. _____

   e. A school district using data processing for pupil accounting may use the last school day of the eighteenth-week reporting period. _____

   f. A school district operating on the quarter system may use the last school day of the second quarter. _____

9. I hereby certify that the information contained in this Transportation Report is true and correct to the best of my knowledge.

Signed _____
District or County Superintendent making this report signs in presence of Notary Public.

Subscribed and sworn to before me this _____ day of _____ 1975.

_____

Notary Public in and for _____ County, Texas

By March 1 return the original and one copy to:

Texas Education Agency
Division of Administrative Services
Transportation Section
201 East 11th Street
Austin, Texas 78701

TEA-177

(continued)

ADM-027R74

FIGURE A1 (Con't)

INSTRUCTIONS FOR DERIVING "FORMULA CAPACITY"

(Careful reading of these instructions will reduce the possibility of errors occurring in the Formula Capacity column in Table I of this Report.)

Formula Capacity is the number of eligible children being transported who live two or more miles from school along the approved route served by the bus. A bus that makes two or more trips or serves two or more schools shall be considered as having a capacity equal to the largest number of eligible children on the bus at any one time.

A pupil may be counted on only one bus if he rides two or more buses in reaching school. The district or districts concerned may decide on which unit he will be reported. If a route has two or more trips, count the largest capacity trip only.

EXAMPLES:

The bus on route #2 proceeds south of the school and transports 47 pupils to school. It then goes north (second trip) and returns with 50 eligible pupils. The total capacity is 97. However, the Formula Capacity is 50.

The bus on route #3 transports both elementary and high school pupils. When it reaches the elementary school it has 30 elementary pupils and 20 high school pupils, or a total of 50. The elementary pupils get off the bus and it proceeds 10 miles to the high school, picking up an additional 20 high school pupils en route. The bus actually has transported 70 pupils, but the Formula Capacity calculated for this day only would be 50, since this represents the largest number on the bus at any one time.

Either of the following methods may be used for deriving the Formula Capacity figure that is to be used in determining the Formula Allowable for the entire year:

(1) Count the number of eligible pupils (who normally ride the bus) that are enrolled on the last school day of each of the first five school months. Total these numbers and divide the result by five. The average thus derived would be the Formula Capacity.

EXAMPLE:

Route #1 has 40 eligible pupils enrolled the last school day in the first school month; 43 the last school day in the second school month; 46 in the third school month; 53 in the fourth school month; 56 in the fifth school month. The total would be 238. Divide by 5 and the average or Formula Capacity, would become 47.6 or 48. Do not report fractions.

If the school system reports its attendance by six-week periods, the average for the first three six-week periods may be substituted for the five-month average. Use the last school day of each six-week period to secure the numbers used for this method.

If the school system reports its attandance by nine-week periods, the average for the first two nine-week periods may be substituted for the five-month average. Use the last school day of each nine-week period to secure the numbers used for this method.

(2) The alternative method that may be used to derive the Formula Capacity is to count the total number of eligible bus pupils in active membership at school on the first Monday in February. Remember, only pupils who normally ride the bus may be counted.

(continued)

FIGURE A1 (con't)

Co.-Dist. No. | Name of District | County

TABLE I. PUPIL CAPACITY REPORT FOR 1974-75
(Table I must be completed)

Please read Instructions at bottom of page before completing Table I.

a. Route No.	b. No. of Trips	c. Length in Miles		Total Miles	Vehicle Model Give Year	Manufacturer's Rated Capacity	d. Total Pupil Capacity	e. Formula Capacity	f. Base Allowable
		Surfaced	Dirt						
Totals									

a. Use the regular route number assigned by county board.
b. Number of trips refers to the number of separate trips or runs the bus makes in transporting different groups of children. If the bus makes one run in the morning and one in the afternoon, it is a one-trip route. If the bus makes two runs in the morning and two each afternoon, it is a two-trip route, etc.
c. Length in miles. Include mileage for all approved changes made since original survey was filed. A surfaced road is one where ANY surface material (gravel, caliche, asphalt, etc.) has been added to the natural base.
d. This is the total number of eligible pupils that ride the bus. Do not count pupils that already have been counted in the capacity of another vehicle. Count only eligible pupils.
e. Formula Capacity refers to the largest number of eligible pupils on the bus at any one time. See detailed instruction on page 2 of this form.
f. Base Allowable is derived by applying the Formula Capacity to the following table of allocations that have been established by statute:

FORMULA CAPACITY	–	BASE ALLOWABLE
72 capacity bus	–	$3,276 per year
60–71 capacity bus	–	$3,156 per year
49–59 capacity bus	–	$3,036 per year
42–48 capacity bus	–	$2,916 per year
30–41 capacity bus	–	$2,796 per year
20–29 capacity bus	–	$2,676 per year
15–19 capacity bus	–	$2,196 per year

(continued)

FIGURE A1 (con't)

ROUTES THAT OPERATED LESS THAN NINE MONTHS

*e one of the following spaces to report on each route that operated less than nine months. The final allowable for each route would be in ratio to the number of months operated. If the route operated 7 months, the allowable would be 7/9ths of the regular allocation. Do not use fractions of months. If the route operated less than one-half month, drop the fraction. If the route operated half or more of the month, use the next highest month. Example: 6 months, 5 school days, use 6 months; 6 months, 12 school days, use 7 months.

Route No.____Number of Trips____Surfaced Miles____Dirt Miles____Total____

Year Model____Manufacturer's Rated Capacity____Total Pupil Capacity____

Formula Capacity____Base Allowable*____Adjustment for Excess Length**____

Adjustment for Excess Dirt Road**____Deduction for Routes less than 45 miles

in Length**____Total Allowable on Basis of Nine Months operation____Number

of Months Operated____FINAL ALLOWABLE FOR THIS ROUTE ________________

Route No.____Number of Trips____Surfaced Miles____Dirt Miles____Total____

Year Model____Manufacturer's Rated Capacity____Total Pupil Capacity____

Formula Capacity____Base Allowable*____Adjustment for Excess Length**____

Adjustment for Excess Dirt Road**____Deduction for Routes less than 45 miles

in Length**____Total Allowable on Basis of Nine Months operation____Number

of Months Operated____FINAL ALLOWABLE FOR THIS ROUTE ________________

Route No.____Number of Trips____Surfaced Miles____Dirt Miles____Total____

Year Model____Manufacturer's Rated Capacity____Total Pupil Capacity____

Formula Capacity____Base Allowable*____Adjustment for Excess Length**____

Adjustment for Excess Dirt Road**____Deduction for Routes less than 45 miles

in Length**____Total Allowable on Basis of Nine Months operation____Number

of Months Operated____FINAL ALLOWABLE FOR THIS ROUTE ________________

TOTAL Allowable for Routes of less than Nine Months (This is the figure to be inserted in Item 2, page 1, and becomes a part of the final Summary Report.)__________

* *Base Allowable is calculated in the same manner as outlined under Table I, page 3, for 9-month routes.*

***These adjustments are calculated separately for each route in the same manner as outlined in items 1 through 7 at the top of page 5, except that in this instance the actual length of the one route will be used instead of the Average Route Length figure that was used on page 5.*

TABLE II. REPORT OF PUPIL CAPACITY ON NON–REIMBURSED ROUTES
(Table II must be completed)

Use this portion of report if the district has chosen to operate routes in excess of those approved for reimbursement. Example: District "A" has six regularly approved routes but chooses to operate a seventh route within its own district boundaries for which it does not expect a transportation payment.

If no such routes are operated, please write "NONE" across the face of the table.

Route No.	Length in Miles Surfaced	Dirt	Total	Model Year	Manufacturer's Rated Capacity	Total Pupil Capacity

(continued)

FIGURE A1 (con't)

Co.-Dist. No. | Name of District | County

ADJUSTMENT TO BASE ALLOWABLE

1. The following information is taken from Table I, page 3. The aggregate mileage covered by all routes is _____. Divide this by the number of routes _____ this gives the AVERAGE ROUTE LENGTH of _____ miles. Of the aggregate mileage, there are _____ miles or _____ % routed over surfaced roads and _____ miles or _____ % over dirt roads.

2. ADJUSTMENT FOR EXCESS MILEAGE. If your Average Route Length shown in Item 1 above is in excess of 55 miles, subtract 55 from your Average Route Length. This gives _____ excess miles. For each 5 miles or major fraction of 5 miles of this excess, you are entitled to a 1% credit adjustment to your Base Allowable derived as the total of Table I, page 3 of this report. This gives _____ you an excess percentage credit of _____ %. Multiply this times the Base Allowable derived in Table I and enter the product at the right. $_____

3. ADJUSTMENT FOR EXCESS OF DIRT ROAD. In Item I above _____ was derived as the percentage of travel over dirt roads. If this percentage is lower than 40%, there will be no adjustment for excess of dirt road. If higher than 40%, divide the _____ % difference in percentage by 2 to derive your percentage adjustment of _____ % for the excess of dirt road. Multiply this percentage adjustment figure by the Base Allowable derived in Table I, page 3, and enter the product at the right. $_____

4. NOW ENTER AT RIGHT THE BASE ALLOWABLE DERIVED IN TABLE I, Page 3. $_____

5. PRELIMINARY TOTAL: (Sum of above Items 2, 3, 4.) $_____

6. DEDUCTION FOR AVERAGE ROUTE LENGTH LESS THAN 45 MILES. If the Average Route Length derived in Item I above is less than 45 miles, it is necessary to deduct 1% of the Base Allowable derived in Table I, page 3, for each 5 miles or major fraction of 5 miles of the difference between the Average Route Length and 45 miles. Based on a difference of _____ miles, your percentage deduction is computed as _____ %. Multiply the Base Allowable by this percentage deduction and enter at right the amount that is to be deducted. $_____

7. TOTAL ALLOWABLE. (The difference between the figures extended from Items 5 and 6 above.) $_____

TABLE III.

ROUTES WITH FEWER THAN FIFTEEN ELIGIBLE PUPILS: DISTRICT–OWNED VEHICLES

(Table III must be completed.)

This table gives data on school-owned vehicles that transport fewer than 15 pupils at any one time. Give total number transported if the bus serves two or more schools, or makes two or more trips. (This may be in excess of 15.) If no such routes are operated, please write "NONE" across the face of the table.

Route No.	Type of Vehicle	Surfaced Miles	Dirt Miles	Total Miles	No. of Trips	Total Pupils Transported	Base Allowable*

**The Allowable is $75 times the number of pupils transported if fewer than fifteen eligible pupils are transported. If the vehicle makes two or more trips or serves two or more schools and transports more than fifteen total, but never has as many as fifteen at one time, the base allowable is $1,450. Total payment shall not exceed the $1,450 allowable.*

TOTAL APPROVED COST FOR ALL ROUTES WITH FEWER THAN 15 ELIGIBLE PUPILS *(Enter this on page 1, item 3, as a part of the final Summary Report.)* _____

(continued)

FIGURE A1 (con't)

TABLE IV. PUPILS TRANSPORTED BY NON-FOUNDATION SCHOOLS
(Table IV must be completed)

Complete only if some of the pupils in the district ride buses owned and operated by budget balance schools. This table applies to very few districts in Texas. No payment can be made to a budget balance school from the Foundation Program Fund. However, this report provides the basis for payment to be made to the non-transporting Foundation Program District, which in turn may reimburse the transporting budget balance district. If no such routes are operated, please write "NONE" across the face of the table.

Home District _____ *Transporting District (Non-Foundation)* _____

Route No.	Length in Miles		Total	Capacity		Total	Base Allowable	Per Cent Allowable*
	Surfaced	Dirt		Home Dist.	Trans. Dist.			

** The percentage allowable is in direct proportion to the number of eligible children. If the route has a normal base allowable of $2,430, has a total capacity of 50, and 20 of these pupils reside in the Foundation Program School District, the percentage allowable would be: 20/50, or 40% of $2,430 - $972. This is the amount that would be entered in the final column.*

TABLE V. PUPILS SERVED FROM OTHER DISTRICTS
(Table V must be completed)

1. If all pupils transported live in the home district, write "All Transported Pupils Reside in Home District" across the face of the table.
2. If the district transports transferred scholastics who reside in other districts, insert data in table below.
3. ALL COUNTY UNIT SYSTEMS must complete this table regardless of where pupils reside.

Name of each District Served	County	Number of Pupils Transported from other Districts							
		Route* #	Route* #	Route* #	Route* #	Route* #	Route* #	Route* #	Route* #

**List the number of pupils for each district according to the route or routes on which they are transported. Do not report children served by private transportation.*

TABLE A2. COMPARISON OF OFFICIAL BUDGET WITH EXPENDITURES FOR THE YEAR ENDED AUGUST 31, 1973

		EXPENDITURES						
		OPERATING FUND	BUILDING FUND	INTEREST & SINKING FUND	SPECIAL FUNDS	TOTAL EXPENDITURES	BUDGET 1972-73	BUDGET OVER (UNDER)
100	Administration							
110	Salaries	$ 251,141.83				$ 251,141.83	$ 265,000.00	$ 13,858.17
120	Contracted services	59,554.11			$ 750.00	60,304.11	62,000.00	1,695.89
130	Other expenses	51,255.55				51,255.55	53,000.00	1,744.45
	Total administration	361,951.49			750.00	362,701.49	380,000.00	17,298.51
200	Instruction							
210	Salaries	8,235,193.83			141,274.78	8,376,468.61	8,403,500.00	27,031.39
220	Textbooks	4,002.99				4,002.99	5,000.00	997.01
230	Library and audio-visual materials	58,621.91			15,353.83	73,975.74	78,500.00	4,524.26
240	Teaching supplies	168,610.72				168,610.72	168,750.00	139.28
250	Other expenses	175,761.85				175,761.85	176,250.00	488.15
	Total instruction	8,642,191.30			156,628.61	8,798,819.91	8,832,000.00	33,180.09
300	Attendance service							
310	Salaries	16,854.74				16,854.74	18,750.00	1,895.26
	Total attendance service	16,854.74				16,854.74	18,750.00	1,895.26
400	Health service							
410	Salaries	957.32			8,111.21	9,068.53	9,400.00	331.47
420	Other expenses	3,808.00				3,808.00	4,100.00	292.00
	Total health service	4,765.32			8,111.21	12,876.53	13,500.00	623.47
500	Pupil transportation							
510	Salaries	227,400.59				227,400.59	231,000.00	3,599.41
520	Contracted services	3,823.77				3,823.77	4,000.00	176.23
530	Replacement of vehicles	65,947.00				65,947.00	66,000.00	53.00
540	Transportation insurance	5,000.00				5,000.00	5,000.00	- 0 -
560	Other expense for operation and maintenance	71,618.53				71,618.53	72,200.00	581.47
	Total pupil transportation	373,789.89				373,789.89	378,200.00	4,410.11
600	Operation of plant							
610	Salaries	396,777.08				396,777.08	397,500.00	722.92
620	Contracted services	- 0 -				- 0 -	- 0 -	- 0 -
630	Heat for buildings	29,238.87				29,238.87	29,750.00	511.13
640	Utilities	289,967.25				289,967.25	295,000.00	5,032.75
650	Supplies, except utilities	36,306.54				36,306.54	36,500.00	193.46
660	Other expenses	218.10				218.10	1,750.00	1,531.90
	Total operation of plant	$ 752,507.84				$ 752,507.84	$ 760,500.00	$ 7,992.16

TABLE A3. COMPARISON OF OFFICIAL BUDGET WITH EXPENDITURES FOR THE YEAR ENDED AUGUST 31, 1973

FUNCTION		10 GENERAL OPERATING FUND	20 DESIGNATED PURPOSE FUND	50 INTEREST & BONDED DEBT FUND	60 CONSTRUCTION FUND	99 OTHER FUNDS	98 TOTAL EXPENDITURES	99 BUDGET 1972-73	BUDGET OVER (UNDER)
32 Attendance and Social Work									
6100 Payroll Costs		2,197					2,197	2,500	303
6200 Purchased and Contracted Services								500	500
6300 Supplies and Materials		218					218	836	618
Total Attendance and Social Work	326000	2,415					2,415	3,836	1,421
33 Health Services									
6100 Payroll Costs		172,388					172,388	176,213	3,825
6300 Supplies and Materials		4,508					4,508	4,744	236
6400 Other Operating Expenses		507					507	7,339	6,832
6600 Capital Outlay		848					848	1,016	168
Total Health Services	336000	178,251					178,251	189,312	11,061
34 Pupil Transportation - Regular									
6100 Payroll Costs		488,007					488,007	495,088	7,081
6200 Purchased and Contracted Services		11,622					11,622	12,650	1,028
6300 Supplies and Materials		180,202					180,202	174,845	(5,357)
6400 Other Operating Expenses		163,006					163,006	220,152	57,146
6600 Capital Outlay		34,709					34,709	20,000	(14,709)
Total Pupil Transportation - Regular	346000	877,546					877,546	922,735	45,189
35 Pupil Transportation - Special Education									
6100 Payroll Costs		50,098					50,098	54,750	4,652
6300 Supplies and Materials		7,978					7,978	16,790	8,812
6400 Other Operating Expenses		3,015					3,015	10,437	7,422
6600 Capital Outlay								14,440	14,440
Total Pupil Transportation - Special Education	356000	61,091					61,091	96,417	35,326
36 Co-curricular Activities									
6100 Payroll Costs		3,920					3,920	3,815	(105)
6300 Supplies and Materials		148,404					148,404	172,239	23,835
6400 Other Operating Expenses		6,376					6,376	10,000	3,624
Total Co-curricular Activities	366000	158,700					158,700	186,054	27,354
40 ADMINISTRATION									
41 General Administration									
6100 Payroll Costs		589,178					589,178	639,619	50,441
6200 Purchased and Contracted Services		101,652	200				101,852	136,177	34,325
6300 Supplies and Materials		49,806					49,806	88,052	38,246
6400 Other Operating Expenses		168,513					168,513	262,864	94,351
6500 Debt Service		121,839					121,839	122,240	401
6600 Capital Outlay		4,870					4,870	6,480	1,610
Total General Administration	416000	1,035,858	200				1,036,058	1,255,432	219,374

The accompanying notes are an integral part of these financial statements.

FIGURE A4. (Con't)

Number of Pupils Transported by Route:

Route	Pupils Transported	Route	Pupils Transported
1	_____	11	_____
2	_____	12	_____
3	_____	13	_____
4	_____	14	_____
5	_____	15	_____
6	_____	16	_____
7	_____	17	_____
8	_____	18	_____
9	_____	19	_____
10	_____	20	_____

Number of Pupils Not Transported:

Percent of ADA _____

Total Eligible _____

Within 2-mile Limit:

1-2 Miles from School _____

0.5-1 Mile from School _____

0-0.5 Mile from School _____

Linear Density of District:

Transported Pupils/Route Mile _____

Eligible Pupils/Route Mile _____

ADA/Route Mile _____

Areal Density of District: (Area of District = _____square miles)

Transported Pupils/Square Mile _____

Eligible Pupils/Square Mile _____

ADA/Square Mile _____

Average Bus Life in situ: _____years

Annual Mileage for Vocational Education: _____

Average Number of Days per School Year that any One Bus is Inoperable: _____

ADA =_____

(continued)

FIGURE A4. (Con't)

School Year ____-____

Number of Buses Operated:

Everyday _____

Substitutes _____

Number of Drivers:

Everyday _____

Substitutes _____

Bus Mileage by Route:

Route-	Paved Miles	Unpaved Miles
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____
9	_____	_____
10	_____	_____
11	_____	_____
12	_____	_____
13	_____	_____
14	_____	_____
15	_____	_____
16	_____	_____
17	_____	_____
18	_____	_____
19	_____	_____
20	_____	_____

FIGURE A5. FINANCIAL DATA COLLECTION FORM FOR BULLETIN 613

School Year ____-____

Assignable Administrative	_____
Assignable Clerical	_____
Bus Drivers' Salaries	_____
Substitute Bus Drivers	_____
Assignable Mechanics Salaries	_____
Insurance	_____
Supplies	
Gas & Oil	_____
Tires & Tubes	_____
Parts	_____
Other Maintenance Expenses and Supplies	_____
Contracted Maintenance	_____
Assignable Facilities	_____
Tools	_____
Bus Warrant Principle	_____
Bus Warrant Interest	_____
Other Money Expended on New Buses	_____

(continued)

FIGURE A5. (Con't)

Co-Curricular Mileage Charge _____

Contracted Transportation _____

Annual Depreciation Allowance on Buses:

Average Salvage Value of Buses:

Costs due to Desegregation Plans (if individually identifiable):

Any Other Costs Contributing to the Total Cost of School Transportation:

Source	Amount
_____	_____
_____	_____
_____	_____

FIGURE A6. FINANCIAL DATA COLLECTION FORM FOR BULLETIN 679

School Year ____-____

Payroll (61)

Assignable Administrative (6111) _____

Assignable Clerical (6113) _____

Bus Drivers' Salaries (6113) _____

Substitute Bus Drivers (6114) _____

Assignable Maintenance Salaries (6113) _____

Employee Sick Leave (6114) _____

Other Employee Benefits (6149) _____

Purchased and Contracted Services (62)

Contract Maintenance and Repair (6263) _____

Bus Rentals (6283) _____

Supplies and Materials (63)

Bus Operation and Maintenance Supplies (6313)

Parts _____

Tires and Tubes _____

Supplies _____

Gas and Oil _____

Other Operating Expenses (64)

Insurance: Number of Buses Insured = _____

Property (6431) _____

Liability (6432) _____

Bonds on Drivers (6433) _____

(continued)

FIGURE A6. (Con't)

Capital Outlay (65)

Bus Warrant Principle (6513) _____

Bus Warrant Interest (6523) _____

Other Money Expended on New Buses _____

Facilities (66) _____

Equipment (6639) _____

Contracted Transportation _____

Driver Training Costs (estimate current) _____

Annual Depreciation Allowance on Buses:

Average Salvage Value of Buses:

Costs due to Desegregation Plans (if individually identifiable):

Any Other Costs Contributing to the Total Cost of School Transportation:

Source	Amount
_____	_____
_____	_____
_____	_____

Co-Curricular Mileage Charge _____

FIGURE A7. TEXAS TRANSPORTATION DATA

We need the information as outlined below for school years 1972-73 and 1973-74. (We realize, of course, that some of the financial data for 1973-74 will be incomplete. Please report expenditures to date and tell us how many days of the school year this represents. We will extrapolate to 180 days.)

1. Administrative and clerical costs. Please give the total of all administrative and clerical salaries attributable to setting up and running the transportation system. Include all persons who expend effort on the transportation function, regardless of where their salaries appear in the budget. Include only the portion of each person's salary assignable to transportation.

1972-73 $_____ 1973-74 $_____

2. Maintenance costs. Include maintenance salaries assignable to bus maintenance only. Include parts and supplies costs expended on bus repair only. Include tires and tubes used for buses only. Include contracted maintenance and repair for work on buses only. Do not include gasoline costs in this total. (If your records do not facilitate such a breakout of maintenance costs, please give us your best estimate and indicate that it is such.)

1972-73 $_____ 1973-74 (to date) $_____

check one: _____ actual _____ estimate represents _____ school days

3. Gasoline costs. Please give gross gasoline costs for regular and special education routes only. Do not include gasoline expended on co-curricular travel or used by other district vehicles. If your records do not facilitate such a breakout of gas cost, please give us your best estimate and indicate it is such. Also, please furnish per gallon gasoline costs. (We realize your 1973-74 per gallon cost has probably fluctuated. Please give September cost and cost of latest delivery.)

Gross gasoline cost:

1972-73 $_____ 1973-74 (to date) $_____

check one: _____actual _____estimate represents _____school days

Per gallon cost:

1972-73 $_____ 1973-74: Sept. $_____

Current $_____

4. Bus drivers' salaries. Please give gross bus drivers' salaries for driving regular and special education routes only. Do not include salaries for co-curricular travel. Please give totals for regular routes and special education routes separately. If your records do not facilitate such a breakout of driver salaries, please give us your best estimate and indicate that it is such. Also please furnish the driver unit salary. We need an equivalent monthly salary, so if salary is not paid monthly, but rather hourly, please compute an average monthly salary based upon hours worked per driver.

Gross drivers' salaries:

1972-73 $_____ 1973-74 (to date) $_____

check one: _____ actual _____ estimate represents _____ days

Driver average unit salary:

1972-73 $_____/month 1973-74 $_____/month

check one: _____actual _____computed

(continued)

FIGURE A7. TEXAS TRANSPORTATION DATA (con't)

5. Routes and route miles. Please give number of routes operated daily for each function, regular and special education. Please give regular routes without regard for state eligibility rules for reimbursement. Also please furnish the average daily route miles traveled on these routes for each function. We need the average daily mileage actually traveled, not a reiteration of the TEA Pupil Transportation Report, unless that is actually the way the routes are run in the field. Give regular mileage without regard to state eligibility rules for reimbursement. If your records do not facilitate such an accounting of daily mileage, please give us your best estimate and indicate that it is such. (We might suggest one possible method of estimation. If total annual miles is available for buses, subtract co-curricular miles from this total and divide that remainder by 180;)

Routes:

1972-73: Regular_____ 1973-74: Regular_____

Special Ed._____ Special Ed._____

Daily route mileage:

1972-73: Regular_____ 1973-74: Regular_____

Special Ed._____ Special Ed._____

check one: _____ actual
_____ estimate

6. Co-curricular mileage. Please furnish actual co-curricular mileage traveled by buses. If your records do not facilitate such an accounting of co-curricular mileage, please give us your best estimate and indicate that it is such.

1972-73_____ 1973-74 (to date) _____

Estimate total for year _____

check one: _____actual
_____estimate

7. Pupils transported. Please give the total number of students transported daily for each function. For regular transportation, give this total without regard to state eligibility rules for reimbursement. If your records do not accurately account for ineligible students transported, please give us your best estimate of this figure, and indicate that it is such.

1972-73: Regular_____ 1973-74: Regular_____

Special Ed._____ Special Ed._____

check one: _____ actual
_____ estimate

8. Buses and bus insurance. Please tell us how many buses were used during the year for regular and special education routes including spares. Also please tell us how much insurance for these buses cost for the year.

1972-73 _____ buses 1973-74 _____buses

Insurance cost_____ Insurance cost_____

9. Bus gas mileage. Please give us the actual average gas mileage experienced by your fleet during the school year. If your records do not include an accurate accounting of bus gas mileage, please give us your best estimate and indicate it is such.

1972-73_____ 1973-74_____

check one: _____actual
_____estimate

(continued)

FIGURE A7. TEXAS TRANSPORTATION DATA (con't)

10. Area of district. Please give the area of the school district(s) served by your transportation system.

1972-73 _____ square miles 1973-74 _____ square miles

11. ADA. Please furnish the gross ADA of the school district(s) served by your transportation system.

1972-73 _____ 1973-74 _____

12. New bus costs. Please tell us how much money was spent for new buses during the year. Include payments on loans--both principal and interest--made during the year and outright purchases.

1972-73 _____ 1973-74 _____

13. Please estimate what percent of your total district budget transportation expenditures compose. Also please estimate what percent of the maintenance and operating budget these expenditures account for.

1972-73: % of total _____ 1973-74: % of total _____

% of M & O _____ % of M & O _____

****

Please return the completed form by June 3, 1974 to:

Kelly Hamby
Director of Research
Governor's Office of Educational
Research and Planning
Capitol Station
Austin, Texas 78711

FIGURE A8. TEXAS SCHOOL TRANSPORTATION DATA

All of the data requested on this form is for the 1972-73 school year.

1. Daily routes and route mileage. Please give us the number of routes driven daily and the average daily route mileage actually driven by your fleet for each function, regular and special education transportation. Please note that we do not want a reiteration of the TEA Pupil Transportation Report unless the mileage actually driven is accurately reflected there. If your records do not facilitate such a breakout of mileage, please give us your best estimate, and indicate that it is such. Please give routes and mileage for regular transportation without regard for state eligibility rules for reimbursement. (We might suggest a possible method of mileage estimation: if a log of total annual fleet miles is available, subtract the co-curricular mileage contribution to this total and divide the remainder by 180).

   Check one:

   Regular Transportation ____ routes/day _____miles/day actual _____ estimate _____

   Special Transportation ____ routes/day _____miles/day actual _____estimate _____

2. Co-curricular mileage. Please furnish the total co-curricular mileage traveled by the bus fleet during the school year. If your records do not accurately account for this mileage, please give us your best estimate, and indicate that it is such.

   Check one:

   Co-curricular _____ total 1972-73 miles actual_____ estimate_____

3. Pupils transported. Please furnish us with the total number of students transported daily for each function, regular and special education transportation. For regular transportation, give total students transported without regard for state eligibility rules for reimbursement. If your records do not accurately account for ineligible students transported, please give us your best estimate of this figure, and indicate that it is such.

   Check one:

   Regular Transportation _____students/day actual_____estimate _____

   Special Transportation _____students/day actual_____estimate _____

4. Area of district. Please give us the area of the school district (s) served by your transportation system.

   _____ square miles

5. How many buses, including spares, were used for pupil transportation during the year?

   Regular Transportation _____buses

   Special Transportation _____buses

6. If you were required to make any estimates in supplying the above information, please indicate on the scale below the degree of confidence you place in these estimates.

   Very Confident 1 2 3 4 5 Not Confident

****

Return to: Kelly Hamby
Governor's Office of Educational Research and Planning
Capitol Station
Austin, Texas 78711

APPENDIX B

PUPIL TRANSPORTATION CHARACTERISTICS FOR SAMPLED TEXAS SCHOOL DISTRICTS

TABLE B1. SCHOOL TRANSPORTATION DATA COLLECTED FROM ORIGINAL SAMPLE OF 22 DISTRICTS FOR SCHOOL YEAR 1972-1972

DISTRICT	OFFICE COSTS	BUS DRIVERS' GROSS SALARIES	BUS DRIVERS' UNIT SALARY	TOTAL MAINTE-NANCE COST	GROSS MAINTE-NANCE SALARIES	CONTRACTED MAINTENANCE	MAINTENANCE PARTS & SUPPLIES COSTS	BUS INSURANCE & DRIVER BONDING COST
Austin	52,812	307,331	2.31 - 3.15/hr.	63,389	17,500	2,173	43,916	12,856
Corpus Christi	3,360	43,922	2.00/hr.	40,796	4,270	--	36,526	1,819
Houston	56,385	527,355	175/mo.	455,931	417,016	--	38,895	28,272
Comal	22,887	644,908	2.60/hr.	34,160	15,000	2,006	17,154	3,888
Cypress-Fairbanks	4,680	192,333	160/mo.	80,987	53,267	1,764	25,256	13,551
Del Valle	4,680	52,292	105 - 170/mo.	18,442	8,400	3,744	6,298	2,368
Eanes	3,500	10,080	200/mo.	7,463	--	6,100	1,363	1,628
Springbranch	34,513	397,836	280-350/mo.	213,847	83,600	21,967	109,745	46,979
Northeast (S.A.)	25,900	194,640	2.50 - 3.15/hr.	91,086	46,680	8,925	38,481	15,000
Manor	2,650	9,930	120/mo	7,760	900	5,843	1,019	960
Pasadena	48,519	389,528	2635 - 3308/yr.	102,321	59,000	5,103	38,218	47,616
Killeen	8,578	48,029	1.89/hr.	50,204	21,327	7,704	21,173	2,541
Odessa	19,461	222,740	2.50/hr.	149,072	80,757	-0-	68,315	18,973
Tyler	13,708	73,488	175 - 190/mo.	45,281	17,475	5,232	21,574	4,500
Bastrop	4,800	24,757	140/mo. (160/mo. on 2 rts)	19,512	5,000	8,442	6,070	3,191
Edinburg	16,922	59,126	1.70 - 2.10/hr.	75,750	40,500	--	35,250	3,128
Georgetown	2,210	8,799	130/mo.	8,720	2,000	4,790	1,930	2,004
San Marcos	7,500	29,279	2.25/hr.	21,052	12,500	787	7,765	3,906
Burnet	3,000	19,240	148/mo.	14,122	5,400	983	7,739	1,638
Johnson City	1,000	4,616	100/mo.	3,874	1,485	1,580	809	788
Llano	3,200	14,649	125/- 135/mo.	18,813	7,854	1,258	9,701	1,048
Nacogdoches County System	9,900	45,942	125 - 135/mo.	33,015	14,210	--	18,805	2,116

(continued)

TABLE B1. SCHOOL TRANSPORTATION DATA COLLECTED FROM ORIGINAL SAMPLE OF 22 DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT	GROSS GASOLINE COST	PER GALLON GAS COST	ASSIGNABLE FACILITIES COST	NEW & REPLACEMENT BUS COST	CONTRACTED TRANSPORTATION	NO. OF BUSES RUN DAILY	NO. OF REGULAR DRIVERS	AREA OF DISTRICT (SQ. MI.)
Austin	31,210		7,300	223,804	2,700	88	88	287
Corpus Christi	6,729	.1755	200	16,428	23,640	10	10	160
Houston	78,821	.159	5,184	483,284	--	321	321	311
Comal	14,660	.185	3,017	18,217	--	30	26	589
Cypress-Fairbanks	39,368	.1759	4,500	155,336	1,200	89	91	186
Del Valle	12,274	.1979	1,097	10,347	--	25	25	174
Eanes	4,987	.219	1,250	10,912	--	7	7	31
Springbranch	55,469	.179	19,000	113,472	--	205	205	42
Northeast (S.A.)	45,150	.1958	1,200	60,000	--	62	62	135
Manor	3,192	.32	--	2,778	--	7	7	90
Pasadena	28,505	.1755	15,600	137,938	150	64	64	85
Killeen	21,268	.1875	345	54,534	--	35	35	476
Odessa	37,147	.177	6,860	61,513	--	69	69	906
Tyler	16,227	.1635	2,393	30,237	--	39	39	193
Bastrop	7,524	.169	250	18,456	750	18	18	413
Edinburg	23,600	.1819	--	46,500	--	48	48	945
Georgetown	820	.1877	--	13,730	--	10	12	180
San Marcos	9,414	.183	1,000	24,468	900	17	21	212
Burnet	9,836	.2325	1,037	14,692	--	17	17	667
Johnson City	3,318	.190	120	6,324	--	5	5	523
Llano	6,545	.1917	--	8,108	1,871	13	13	909
Nacogdoches County System	17,169	.1785	--	30,720	--	38	38	408

(continued)

TABLE B1. SCHOOL TRANSPORTATION DATA COLLECTED FROM ORIGINAL SAMPLE OF 22 DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT	NO. OF CAMPUSES SERVED	TOTAL DAILY RT. MILES (PAPER)	NO. OF ROUTES REIMBURSED/ NON-REIMBURSED	ANNUAL CO-CURRICULAR MILEAGE	ADA	OTHER REPORTED EXPENSES	AVERAGE SALVAGE VALUE OF BUSES	AVERAGE BUS LIFE (YEARS)	AVERAGE DOWN DAYS/BUS/YR
Austin	88	2,884	63/6	72,908	51,241	59,564	N.A.	10	9
Corpus Christi	36	493	10/0	16.979	39,936	--	250	20	<1
Houston			92/7			3,400	N.A.	10	1
Comal	6	2,135	24/2	34 789	2,385	1,440	250	9	N.A.
Cypress-Fairbanks	6	3,202	61/8	61,521	8,677	--	800	12	N.A.
Del Valle	6	1,306	21/0	9,850	3,709	1,658	300	7	5
Eanes	2	202	3/3	6,016	1,363	--	N.A.	N.A.	N.A.
Springbranch	32	3,580	29/158	94,470	39,333	--	N.A.	18	N.A.
Northeast (S.A.)	19	2,451	49/0	63,198	27,159	1,567	150	9	3
Manor	2	299	7/0	1,000	737	--	2,000	15	N.A.
Pasadena	37	1,685	19/16	59,950	31,770	--	N.A.	12	1
Killeen	17	1,455	32/0	27,713	12,886	1,759	550	10	2
Odessa	15	2,648	48/8	147,940	21,171	1,230	250	8	3
Tyler	21	1,808	36/2	38,353	14,314	1,200	N.A.	10	7
Bastrop	3	1,301	16/1	16,752	1,780	1,534	750	8-10	6
Edinburg	14	3,134	43/4	62,342	8,223	1,020	N.A.	10	N.A.
Georgetown	4	487	7/1	10,833	1,926	--	N.A.	N.A.	N.A.
San Marcos	6	941	16/0	20,365	4,207	637	800	10	2-10
Burnet	4	1,320	13/0	15,165	1,461	--	1,300	7	4
Johnson City	1	511	5/0	3,000	367	--	1,200	7	3
Llano	3	1,288	11/0	4,000	1,006	--	300	16	1-2
Nacogdcches County System	9	1,812	34/2	30,407	4,585	--	625	9-10	N.A.

(continued)

TABLE B1. SCHOOL TRANSPORTATION DATA COLLECTED FROM ORIGINAL SAMPLE OF 22 DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT	TOTAL STATE TRANSPORTATION ALLOTMENT	REG. STUDENTS TRANSPORTED	ARE INELIGIBLE TRANSPORTED?	AVERAGE ROUTE LENGTH REIMBURSED ONLY	AVERAGE ROUTE LENGTH, ALL ROUTES	NO. OF SPECIAL ED. ROUTES	NO. OF SPEC. ED. PUPILS TRANSPORTED	IS UNPAVED MILEAGE TRAVELED?	CURRENT MILEAGE UNPAVED
Austin	296,448	6,191	Yes	48.8	43.2	18	50.1	No	--
Corpus Christi	74,859	602	No	49.3	49.3	12	346	No	--
Houston	643,831	14,800	Yes			215	3,655	No	--
Comal	81,816	2,037	Yes	80.3	85.4	--	--	No	--
Cypress-Fairbanks	203,376	7,526	Yes	49.5	46.4	2	54	No	--
Del Valle	66,326	2,101	No	64.0	64.0	--	6	Yes	~1%
Eanes	9,730	690	Yes	41.9	33.6	--	--	No	--
Springbranch	146,804	18,949	Yes	58.8	19.0	23	350	No	--
Northeast (S.A.)	210,970	7,369	No	50.0	50.0	12	349	No	--
Manor	22,452	578		42.7	42.7	--	--	No	--
Pasadena	160,134	7,353	Yes	48.2	48.1	26	655	No	--
Killeen	108,432	3,665	No	45.5	45.5	3	49	No	--
Odessa	171,184	4,406	Yes	52.0	47.3	8	220		
Tyler	148,236	3,561	Yes	49.7	48.9	2	168	No	--
Bastrop	53,165	1,160	Yes	80.8	76.5	--	5	Yes-1	3.0
Edinburg	140,557	3,767	Yes	68.3	65.3	1	33	Yes-25	261
Georgetown	22,779	569	Yes	67.1	60.9	--	--	No	--
San Marcos	53,355	2,475		58.8	58.8	--	6	No	--
Burnet	48,026	807	No	101.6	101.6	--	--	Yes-10	281
Johnson City	15,107	158	No	102.2	102.2	--	--	Yes	Caliche
Llano	37,438	573	No	117.1	117.1	--	--	Yes-9	362
Nacogdoches County System	104,184	2,764	Yes	51.8	49.0	2	60	Yes	~ 20%

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL SCHOOL YEAR 1972-1973

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
Abernathy	26,462	60	47	3,308	442	559	5.851	0.791
Abilene	68,056	34	89	4,253	2,020	768	169.846	2.630
Alamo Heights	5,663	26	142	5,663	215	40	479.000	5.375
Alba-Golden	19,679	62	75	3,935	317	261	3.530	1.215
Albany	19,569	157	43	2,795	130	240	.840	.289
Alice	52,495	67	70	4,375	821	747	21.398	1.099
Alief	99,972	50	150	5,875	2,000	664	146.162	3.012
Alpine	24,200	475	68	12,100	51	355	.611	.144
Amarillo	41,586	40	105	4,620	1,028	397	355.857	2.589
Anahuac	62,262	88	87	4,789	711	719	3.175	.989
Andrews	80.139	180	79	6,155	437	1,017	1.617	.430
Anthony	4,773	102	40	4,773	45	29	50.000	1.552
Aransas Pass	28,104	26	75	2,810	1.067	375	34.407	2.845
Arlington	168,778	44	118	4,688	3,799	1,436	241.776	2.646
Aspermont	20,506	163	37	4,101	126	552	.509	.228
Athens	53,596	41	72	4,107	1,307	742	16.206	1.761
Atlanta	58,696	46	52	3,913	1,272	1,126	8.420	1.130
Austin	407,497	66	101	5,906	6,191	4,046	178.540	1.530
Avery	22,666	93	71	3,778	243	318	2.316	.764
Avinger	10,202	94	61	3,401	108	168	4.196	1.556
Ballinger	36,120	128	49	4,013	282	733	2.729	.385
Balmorhea	12,194	62	66	4,065	197	184	.931	1.071
Bandera	33,594	80	48	4,199	421	704	1.418	.598
Bartlett	14,576	93	117	3,644	157	125	4.948	.1256
Bastrop	75,007	65	64	4,412	1,160	1,171	4.196	.991
Bay City	58,106	72	97	5,811	802	600	23.816	1.337
Beaumont	95,672	90	151	6,834	1,064	633	217.982	1.681
Beckville	28,488	98	81	4,070	290	352	3.373	.824
Beeville	56,278	87	104	8,040	649	543	11.549	1.195
Benavides	142,981	363	148	10,999	394	967	1.479	.407
Big Springs	87,972	52	86	5,865	1,691	1,020	25.627	1.658
Big Sandy	19,348	50	74	3,870	390	260	3.198	1.500
Bloomington	25,218	39	83	4,203	650	303	8.288	2.145

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
Blue Ridge	12,767	61	66	2,192	209	192	4.567	1.089
Boerne-County Line	32,204	55	53	3,578	582	604	3.652	.964
Boling	39,199	50	88	4,900	781	446	6.308	1.751
Bonham	43.995	58	65	4,400	762	678	8.702	1.124
Borden	46,563	335	67	7,761	139	694	.222	.200
Borger	23,035	62	127	3,291	372	181	58.154	2.055
Bovina	27,874	148	57	4,645	188	490	2.784	.384
Bowie County	267,436	43	74	3,566	6,269	3,633	13.675	1.725
Bowie	38,692	58	61	3,869	667	635	5.891	1.050
Bracket	23,489	199	37	3.915	118	627	.375	.188
Brady	36,268	130	57	4,534	251	575	2.104	.437
Brazosport	206,849	55	78	2,689	3,784	2,667	48.196	1.419
Breckinridge	48,248	186	45	4,825	260	1,080	1.755	.241
Bremond	24,169	113	61	3,453	213	396	1.888	.538
Brenham	135,907	65	55	3,775	2,078	2,463	7.642	.844
Brownfield	54,208	77	59	3,614	707	915	7.180	.773
Brownsville	241,193	63	156	14,230	3,811	1,546	202.644	2.465
Brownwood	22,891	34	53	3,270	683	428	23.803	1.596
Brookeland	13,366	76	59	4,455	175	225	1.123	.778
Brooks	63,840	131	81	7,980	488	791	2.470	.617
Bryan	68,668	16	33	1,907	4,298	2,085	21.437	2.061
Burkburnett	53,468	65	68	3,342	825	792	19.522	1.042
Burnet	67,307	83	51	5,177	807	1,320	2.229	.611
Calhoun County	89,164	73	85	4,053	1,215	1,055	9.076	1.152
Canadian	34,414	269	57	4,916	119	608	.957	.196
Canyon	114,986	76	64	6,388	1,522	1,808	3.856	.842
Carrizo Springs	31,669	76	42	3,959	416	762	1.803	.546
Carrollton-Farmer	32,054	31	71	2,914	2,027	453	181.075	2.267
Carthage	144,328	80	56	4,374	1,800	2,590	3.918	.695
Center	69,828	54	72	4,364	1,291	965	8.820	1.338
Centerville	40,821	106	53	3.711	384	772	1.325	.497
Cherokee	12,572	108	43	4,191	116	295	.590	.393
Chico	15.176	58	47	3,035	262	324	4.010	.809

(continued)

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
Childress	35,273	207	63	5,039	170	560	1.808	.304
Chillocothe	28,736	181	60	4,789	159	477	1.447	.333
Cisco	22,901	92	55	3,817	249	420	4.546	.593
Clarendon	31,519	147	44	4,503	215	713	.579	.302
Clarksville	60,683	80	56	4,335	754	1,089	4.307	.692
Cleburne	35,553	63	52	3,950	566	572	19.779	.990
Cleveland	49,296	44	85	4,481	1,130	582	15.194	1.942
Clifton	22,547	71	44	3,758	316	514	3.697	.615
Coleman	16,215	125	45	4,054	130	359	4.140	.362
Columbia-Brazoria	88,104	46	70	4,005	1,935	1,261	10.924	1.534
Comal	134,667	66	60	5,180	2,037	2,235	4.042	.911
Comanche	46,613	107	50	3,884	436	936	3.403	.466
Commerce	22,148	52	65	2,769	423	342	12.307	1.237
Conroe	563,789	67	111	5,695	8,119	5,089	31.282	1.595
Cooper	26,691	77	56	3,336	345	475	1.377	.726
Corpus Christi	48,998	81	82	4,900	602	598	255.837	1.007
Corrigan-Camden	31,935	60	80	5,323	531	399	3.433	1.331
Crockett Co. Cons.	33,890	251	89	5,648	135	378	.335	.354
Crosbyton	23,466	116	41	3,352	203	574	1.760	.354
Covington	5,421	66	93	2,711	82	58	3.051	1.414
Cuero	43,998	84	59	4,000	526	747	6.978	.704
Culberson Co.	24,467	213	84	6,117	115	292	.253	.394
Cypress-Fairbanks	433,291	58	71	6,280	7,526	6,062	46.651	1.242
Daingerfield	57,615	49	101	4,431	1,175	572	15.616	2.054
Dalhart	44,848	240	48	5,606	187	943	1.624	.198
Dallas	731,770	34	78	3,075	21,337	9,364	283.169	2,279
Danbury	9,065	82	46	4,533	110	198	7.258	.556
Deer Park	180,820	93	213	4,205	1,934	850	158.526	2.275
Delmar	26,025	79	77	3,718	328	336	3.297	.976
Del Valle	110,718	53	71	5,033	2,101	1,554	21.908	1.352
Denison	53,980	65	108	3,856	828	501	49.550	1.653
Denton	138,806	57	106	4,206	2,449	1,304	43.765	1.678
Deweyville	22,346	57	97	4,469	394	230	3.401	1.713

(continued)

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
Dimmitt	61,028	103	59	4,069	590	1.034	3.190	.571
Dripping Springs	34,186	67	44	3,798	511	776	2.008	.659
Dumas	71,553	198	85	7,950	361	844	4.554	.428
Eagle Pass	63,024	51	72	4,848	1,239	881	4.285	1.406
Eanes	36,523	53	136	5,218	690	269	45.032	2.505
Edinburgh	214,888	57	70	4,572	3,767	3.052	8.702	1.234
Edna	45,632	99	68	5,070	462	673	4,841	.686
El Campo	139,665	61	86	4,656	2,308	1,628	8.411	1.418
El Paso	355,753	56	195	5,310	6,305	1,822	262.221	3.460
Fabens	19,254	55	107	1,925	348	180	22.629	1.933
Fairfield	49,767	73	47	3,830	684	1,049	2.493	.652
Farmersville	16,920	64	68	3,384	264	249	7.367	1.060
Farwell	27,474	90	64	3,925	306	431	3 854	.710
Floydada	54,138	112	61	6,015	485	883	3.100	.549
Follett	6,835	201	42	3,418	34	164	.641	.207
Fort Stockton	71,413	118	75	7,141	605	958	.953	.632
Fredricksburg	52.970	83	51	4,414	638	1,044	2.398	.611
Gainesville	31,956	78	85	4,565	408	378	34.500	1.079
Galveston	126,415	72	138	7,023	1,753	917	118.989	1.912
Georgetown	31,582	56	57	3,948	560	556	11.117	1.023
Giddings	33,931	80	56	4,241	425	607	3.549	.700
Gladewater	102.213	67	41	6,013	1,532	726	15.211	2.110
Glenrose	24,936	84	54	3,562	298	462	2.675	.645
Goldthwaite	20,551	91	38	2.935	226	535	1.553	.442
Goliad	59,530	77	47	3,969	778	1,276	1.394	.610
Gonzales	84,892	89	76	5,659	958	1,121	4.305	.855
Gordon	10,483	126	47	3,494	83	224	1.167	.371
Gorman	16,466	143	33	3,293	115	503	2.743	.229
Graham	49,282	80	63	4,017	617	780	3.874	.791
Granbury	57,594	63	68	4,800	910	851	3.583	1.069
Grandfalls-Royalty	12,895	123	75	4,298	105	172	1.506	.610
Grand Saline	25,765	61	66	5,294	420	392	2.209	1.071
Grandview	13,650	59	59	3.413	230	230	4.933	1.000

(continued)

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
Granger	11,269	119	47	2,817	95	239	3.402	.397
Gregory-Portland	37,591	33	97	5,379	1,148	387	33.535	2.966
Groesbeck	47,583	112	53	4,326	425	900	1.807	.472
Groveton	45,683	113	73	5,710	404	623	1.502	.648
Gustine	15,509	113	58	3,102	137	267	1.437	.513
Hamlin	20,492	129	60	4,098	159	343	3,211	.464
Harlingen	113,189	44	86	7,074	2,600	1,315	43.575	1.977
Hemphill	65,951	70	58	4,019	944	1,136	2.528	.831
Henderson	134,399	71	70	4,800	1,887	1,929	8.430	.978
Henrietta	27,720	92	55	3,969	250	698	1.687	.358
Hereford	127,692	84	53	4,911	1,525	2,426	7.189	.629
Hillsboro	24,254	79	58	3,465	306	417	9.006	.734
Holland	9,016	105	48	3,005	86	186	3.368	.462
Honeygrove	23,244	100	54	3,874	233	432	3.144	.539
Houston	594,129	40	94	5,605	14,800	3,655	616.855	2.343
Huntsville	199,834	69	102	6,891	2,886	1,950	5.559	1.472
Hurst-Euless-Bedford	60,458	25	92	3,779	2,401	654	360.977	3,671
Industrial	50,618	107	83	4,602	475	610	2.351	.779
Iowa Park Cons.	36,648	50	66	4,581	737	559	11.517	1.318
Iraan-Sheffield	41,896	291	90	8,379	144	467	.448	.308
Iredell	7,216	134	78	3,608	54	92	.590	.587
Italy	11,934	85	70	3,978	140	170	7.929	.824
Itasca	20,123	64	61	2,875	3.5	329	4.088	.957
Jacksboro	37,402	165	53	4,675	226	710	1.519	.318
Jasper	107,455	50	73	4,672	2,134	1,473	7.589	1.449
Jim Hogg Co.	36,053	311	46	6,009	116	788	1.094	.147
Johnson City	19,933	126	39	3,987	158	511	.743	.309
Jonesboro	13,148	146	37	3,287	90	356	1.149	.253
Junction	30,068	118	38	3,759	255	799	.676	.319
Kaufman	49,261	49	83	4,926	1,000	594	8.699	1.684
Kemp	28,417	57	53	3,552	500	536	4,500	.933
Kenedy	26,460	50	72	3,780	525	368	8.007	1.427
Kerrville	27,010	41	82	3,858	656	330	17.313	1.988

(continued)

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
Killeen	148,749	41	81	4,648	3,565	1,842	27.071	1.990
Kingsville	19,702	33	164	4,926	600	120	64.085	5.000
Knox City	9,997	156	76	4,999	64	131	4.538	.489
Kountee	43,212	49	76	4,321	875	544	5.594	1.610
LaGrange	51,538	65	64	3,681	786	1,260	4.181	.982
Lamar Cons.	296,319	55	105	4,703	5,373	2,812	21.912	1.911
Lamesa	81,582	56	65	5,827	1,461	1,260	9.641	1.160
Lampassas	66,832	71	51	3,713	933	1,304	1.390	.719
Laneville	26,299	73	72	2,914	357	364	3.822	.978
Laredo	43,082	140	141	5,385	416	305	303.710	1.359
Leakey	10,748	136	60	3,583	79	179	.477	.441
Levelland	78,329	62	71	3,916	1,267	1,105	9.612	1.147
Liberty Hill	18,388	106	64	6,113	173	287	1.991	.603
Liberty	59,829	50	117	5,983	1,190	512	15.782	2.324
Littlefield	39,027	113	57	3,252	345	690	7.565	.500
Llano	55,433	97	49	5,039	573	1,128	1.121	.508
Lockhart	68,348	72	73	4,020	950	941	8.636	1.010
Longview	164,304	51	93	3,160	3,243	1,764	71.175	1.838
Loraine	22,671	133	96	5,668	170	236	2.278	.720
Lubbock	43,136	93	113	4,793	464	381	349.057	1.218
Lufkin	96,352	36	90	3,854	2,649	1,076	43.576	2.462
McAdoo	11,257	142	64	3,752	79	175	.853	.451
McAllen	135,950	27	125	6,180	5,000	1,085	167.153	4.608
Malakoff	47,636	122	96	6,805	389	496	6.657	.784
Manor	32,286	62	108	4,612	518	299	8.172	1.732
Marble Falls	35,512	80	72	4,814	484	536	4.141	.903
Marfa	14,012	90	41	3,503	156	338	.244	.462
Marion Co.	83,323	62	63	3,623	1,343	1,328	4.327	1.011
Marshall-Harrison.	168,268	55	76	3,913	3,049	2,219	15.795	1.374
Mason	56,223	141	59	5,622	400	950	.658	.421
Megargel	5,561	113	48	2,781	49	117	.847	.419
Memphis	10,195	138	50	3,398	74	205	3,396	.361
Menard	30,729	276	54	5,122	115	570	.582	.202

(continued)

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
Mesquite	73,997	43	116	5,286	1,733	637	295.746	2.721
Miami	21,223	342	53	5,306	62	403	.257	.154
Midland	167,203	45	69	5,766	3,693	2,407	19.504	1.534
Midway	23,092	147	45	3,849	157	500	.571	.314
Milford	4,472	102	40	2,236	44	112	2.692	.393
Mineral Wells	60,685	50	101	5,057	1,200	600	38.587	2.000
Mission	45,504	53	215	7,584	854	212	187.120	4.028
Monahans-Wkt-Pyte	32.916	79	110	5,490	557	900	5.924	1.392
Moody	18,028	77	60	3,606	233	301	4.559	.774
Motley Co.	22,569	196	40	3,762	115	559	.320	.206
Mount Pleasant	63,039	50	58	4,203	1,249	1,083	19.924	1.153
Mount Vernon	34,729	68	50	2,894	514	695	3.711	.740
Muleshoe	59.755	77	54	4,268	779	1.097	3.633	.710
Mullin	11,430	143	51	3,810	80	224	.523	.357
Nacogdoches Co.	150,827	55	53	4,190	2,764	2,820	11.238	.980
Natalia	19,240	47	89	3,848	409	215	10.014	1.902
Navarro	17,556	60	66	3,511	295	268	4,867	1.101
Navasota	83,314	55	64	3,737	1,520	1,297	5.754	1.172
Neches	21,449	86	37	4,290	250	580	2.603	.431
New Summerfield	10,956	70	75	2,739	156	147	2.981	1.061
Nixon	20,841	92	52	3,474	226	400	3.559	.565
Norheim	10,916	124	61	3,639	88	180	1.750	.489
Northeast	285,206	39	116	5,821	7,369	2,451	204.265	3.007
Northside	302,072	43	81	6,165	6,908	3,750	67.137	1.863
Northside	14,040	111	79	3,510	126	178	1.378	.708
Odessa	344,923	78	130	6,159	4,406	2,648	23.342	1.664
Olney	19,945	124	65	3.989	161	306	4.075	1.526
Ore City	26,213	78	121	5,243	336	216	5.579	1.565
Overton	10,355	69	138	3,452	150	75	14.857	-2.000
Paducah	33,890	195	44	4,236	174	774	.751	.205
Palestine	107,909	52	85	5.139	2,071	1,263	14.186	1.633
Pampa	644,116	230	90	5,859	280	715	10.229	.392
Paris	30,543	39	165	6,109	785	185	183.552	4.243

(continued)

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
Pasadena	323,842	44	124	9,525	7,353	2.619	418.256	2.808
Pawnee	15,874	127	55	3,175	125	287	1.340	.436
Pearland	77,682	32	111	4,316	2,426	698	93.233	3.476
Pearsall	45,170	114	60	5,646	397	755	2.484	.526
Pecos-Parstow	63,873	109	49	4,913	588	1,316	2,675	.447
Perryton	64,808	206	50	5,401	314	1,302	2.728	.241
Pittsburg	68,933	69	69	3,628	992	1,003	7.451	.989
Plains	37,789	169	54	4,724	223	201	.790	.318
Plainview	105,597	64	59	3,641	1,645	1,785	15.377	.922
Pleasanton	67,385	78	74	5,615	860	910	4.492	.945
Ponder	7,633	76	62	3,817	114	124	2.741	.919
Port Arthur	111,836	68	102	6,990	1,655	1,100	260.725	1.505
Post	42,732	177	62	5,342	242	694	1.367	.349
Prairie Lea	6,877	55	73	3,439	124	94	2.538	1.319
Putnam	2,811	59	31	2,811	48	91	.487	.527
Queen City	30,511	74	67	4,359	410	455	6.367	.901
Rankin	28,913	174	56	9,638	166	512	.489	.324
Raymondville	28,130	83	124	4,782	339	226	31.417	1.500
Refugio	28,751	56	116	4,792	518	247	3.740	2.097
Rice Cons.	51,209	71	61	4,655	723	842	3.964	.859
Richardson	136,688	27	104	4,142	5,000	1,320	771.234	3.788
Richland Springs	18,915	180	44	4,729	105	430	.464	.244
Rio Grande City	137,184	99	101	11,432	1,381	1,355	6.910	1.019
Robstown	25,394	75	108	5,079	339	236	55.736	1.435
Roby	21,192	128	55	3,532	165	384	1.974	.430
Rockdate	35,843	70	61	3,984	510	589	7.116	.866
Rockwakk	35;740	49	74	3,971	727	485	15.176	1.499
Roxton	11,744	186	63	2,936	63	185	1.885	.341
Royal	43,706	66	99	6,244	667	441	5.146	1.512
Sabinal	14,222	141	40	3,556	101	360	1.535	.281
San Angelo	71,543	46	114	1,555	1,557	627	67.069	2.483
San Antonio	32,394	10	47	1,619	3,307	668	812.734	4.807

(continued)

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
San Felipe-Del Rio	120,991	35	93	5,500	3,474	1,300	6.882	2.672
San Marcos	93,753	36	100	4,262	2,575	941	20.792	2.736
Santo	19,538	92	47	2,791	212	414	1.343	.512
San Saba	29,440	124	42	4,206	238	701	1.734	.340
Schleicher Cons.	31,110	219	49	4,444	142	634	.408	.224
Seguin	95,249	85	82	5,953	1,127	1,165	12.953	.967
Seminole	95,008	153	61	6,337	625	1,577	1.585	.396
Seymour	36,403	97	32	3,309	376	1,146	1.029	.328
Shallowater	18,293	61	79	3,659	298	233	9.486	1.279
Shamrock	16,222	189	57	5,407	86	284	2.924	.303
Sherman	73,184	41	111	6,099	1,793	658	75.824	2.725
Sierra Blanca	4,351	256	23	2,176	17	190	.163	.089
Silsbee	103,105	51	26	4,910	2,037	818	21.641	2.490
Silverton	20,536	137	37	4,107	150	553	.740	.271
Skidmore-Tynan	16,362	76	55	2,727	215	295	1.688	.729
Slaton	27,052	35	70	3,865	767	385	18.072	1.992
Slidell	11,610	122	55	2,903	95	210	.928	.452
Slocum	18,720	110	72	3,744	170	261	1.439	.651
Smithville	34,304	95	56	4,288	362	668	3.263	..595
Snook	29,482	62	141	3,276	475	209	3.303	2.273
Snyder	93,265	101	82	4,663	919	1,140	5.721	.806
Sonora	24,852	176	32	4,970	141	768	.527	.184
Spearman	39,507	201	53	4,938	197	744	2.150	.265
Springbranch	858,157	45	110	4,589	18,949	7,812	874.857	2.426
Springlake-Earth	45,515	59	75	3,793	765	607	3.713	1.260
Springtown	28,749	40	73	3,194	720	392	8.586	1.837
Spur	23,515	198	65	8,919	119	360	1.105	.331
Stamford	18,701	156	78	4,675	120	239	7.160	.502
Stephenville	39,886	81	54	3,626	495	738	7.679	.671
Stratford	53,784	243	44	5,378	221	1,220	.849	.181
Sulphur Bluff	13,095	75	51	3,274	175	259	1.402	.676
Sulphur Springs	75,206	53	65	3,418	1,430	1,150	9.233	1.243
Tahoka	25,799	96	43	3,686	290	599	2.867	.451
Tarkington	51,458	57	89	5,718	905	580	3.970	1.560
Temple	24,021	100	96	4,804	240	250	144.080	.960
Texas City	80,707	26	265	1,368	3,157	304	303.000	10.385

(continued)

TABLE B2. REGULAR SCHOOL TRANSPORTATION DATA FOR SELECTED TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

DISTRICT NAME	TOTAL COST REG. TRANS.	COST/ PUPIL	COST/ MILE	COST/ ROUTE	REG. PUPILS	REG. MILES	PUPIL AREAL DENSITY	LINEAR DENSITY
Three Rivers	34,245	132	51	4,281	259	665	1.432	.389
Timpson	42,862	85	73	3,897	507	584	4.130	.868
Trent	9,796	151	40	2,449	65	242	1.184	.269
Tulia	54,771	111	55	4,564	492	996	4.252	.494
Turkey-Quitaque	21,029	128	54	5.257	164	388	.812	.423
Tyler	179,558	59	87	4,853	3,561	2,058	76.171	1.730
Uvalde Cons.	36,590	49	44	2,315	750	841	3.216	.892
Valentine	5,235	87	45	5,235	60	116	.107	.517
Valley Mills	15,483	94	48	3,097	165	325	1.837	.508
Valley View	11,316	79	42	2,904	143	270	3.274	.530
Van Alstyne	19,797	97	104	4,949	205	190	7.627	1.079
Vega	17,344	114	48	4,336	152	362	.788	.420
Wallis	7,401	61	70	3,701	121	106	8.000	1.142
Wall	29,976	61	46	3.331	490	650	1.339	.754
Walnut Springs	7.312	162	40	3,656	45	184	1.124	.245
Warren	68,247	90	84	5,250	761	816	3.426	.933
Waxahachie	47,484	37	67	3,957	1,295	709	17.687	1.827
Wellington	21,825	202	59	4,365	108	373	1.755	.290
Wellman	22,922	123	73	3,820	186	312	1.681	.596
Wells	11,955	66	61	2,989	180	196	3.505	.918
Weslaco	111,126	28	55	3.704	3,976	2,030	112.143	1.959
West-Orange Cove Cons.	66,250	31	148	5,521	2,120	448	212.566	4.732
Wheeler	14,259	188	63	2,852	76	227	1.727	.335
White Settlement	14,502	48	121	2,900	300	120	111.120	2.500
Wichita Falls	141,614	44	95	5,245	3,187	1,492	169.789	2.135
Winnsboro	47,134	89	68	3,928	529	696	4.559	.760
Winters	32,360	151	56	4,045	214	581	2.516	.368
Wolfe City	14,251	84	66	3,563	170	217	3.870	.783
Woodville	64,624	62	74	4,308	1,048	876	5.572	1.196
Woodson	7,162	224	66	3,581	32	109	.596	.294
Yantis	12,413	76	69	3,103	164	180	2.431	.911
Yorktown	28,214	118	62	3,527	240	457	3.826	.525
Ysleta	38,741	20	123	2,930	1,935	314	553.823	6.162
Zapata	50,158	136	89	8,360	390	564	1.084	.650
Zavalla	18,679	106	53	3,136	177	350	1.408	.506

TABLE B3. DEMOGRAPHIC CHARACTERISTICS OF 331 TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973.

District Name	PARDEN	Linear Density	Load Factor	Ave. Rt. Length
ABERNATHY	5.851	.791	55.25	69.85
ABILENE	169.846	2.630	126.25	48.00
ALAMO HEIGHTS	479.000	5.375	215.00	40.00
ALBANY	.840	.289	18.57	64.26
ALBA-GOLDEN	3.530	1.215	63.40	52.18
AMARILLO	355.857	2.589	114.22	44.12
ANAHUAC	3.175	.989	54.69	55.30
ALICE	21.398	1.099	68.42	62.25
ALIEF	146.162	3.019	117.65	39.06
ALPINE	.611	.144	25.50	177.08
ANDREWS	1.617	.430	33.62	78.18
ARANSAS PASS	34.407	2.845	106.70	37.50
ANTHONY	50.000	1.559	45.00	28.99
ARLINGTON	241.766	2.644	105.53	39.88
ASPERMONT	.509	.289	25.20	87.50
ATHENS	16.206	1.761	100.54	57.09
ATLANTA	8.420	1.130	84.80	75.04
AVERY	2.316	.764	40.50	53.01
AVINGER	4.196	.649	36.00	55.99
AUSTIN	178.540	1.530	89.72	58.64
BALLINGER	2.729	.385	31.33	81.39
BALMORHEA	.931	1.071	65.67	61.31
BANDERA	2.586	.598	52.62	88.00
BARTLETT	4.948	1.256	39.25	31.25
BASTROP	4.196	.991	68.24	68.85
BEAUMONT	217.982	1.681	76.00	45.21
BAY CITY	23.816	1.337	80.20	59.99
BECKVILLE	3.373	.824	41.43	50.28
BEEVILLE	11.549	1.195	92.71	77.59
BIG SANDY	3.198	1.500	78.00	52.00
BIG SPRING	25.627	1.658	112.73	67.99
BLOOMINGTON	8.288	2.145	108.33	50.51
BLUE RIDGE	4.567	1.089	52.25	47.98
BOERNE COUNTY LINE	3.652	.964	64.67	67.08
BRACKETT	.375	.188	19.67	104.61
BRADY	2.104	.437	31.37	71.80
BRAZOSPORT	48.196	1.419	49.14	34.63
BOLING	6.308	1.751	97.62	55.75
BONHAM	8.702	1.124	76.20	67.79
BORDEN	.222	.200	23.17	115.83
BORGER	58.154	2.055	53.14	25.86
BOVINA	2.784	.384	31.33	81.60
BOWIE COUNTY	13.675	1.726	83.59	48.43
BOWIE	5.891	1.050	66.70	63.52
BRECKENRIDGE	1.755	.241	26.00	107.88
BREMOND	1.888	.538	30.43	56.56
BRENHAM	7.642	.844	57.72	68.39
BROOKELAND	1.123	.778	58.33	74.98
BROOKS COUNTY	2.470	.617	61.00	98.87
BROWNFIELD	7.180	.779	47.13	60.97

(continued)

TABLE B3. DEMOGRAPHIC CHARACTERISTICS OF 331 TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

District Name	PARDEN	Linear Density	Load Factor	Ave. Rt. Length
BROWNSVILLE	202.644	2.465	224.18	90.94
BROWNWOOD	23.803	1.596	97.57	61.13
BURKBURNETT	19.522	1.042	51.56	49.48
BURNET	2.229	.611	62.08	101.60
CALHOUN COUNTY	9.076	1.152	55.23	47.94
CANADIAN	.957	.196	17.00	86.73
CANYON	3.856	.842	84.56	100.42
CARRIZO SPRINGS	1.803	.546	52.00	95.24
CARROLLTON-FARMER BR	181.075	2.267	93.36	41.18
CARTHAGE	3.918	.695	54.55	78.48
CENTERVILLE (LEON)	1.325	.497	34.91	70.24
CENTER	8.820	1.338	80.69	60.30
CHEROKEE	.590	.393	38.67	98.39
CHICO	4.010	.809	52.40	64.77
CHILDRESS	1.808	.304	24.29	79.89
CHILLICOTHE	1.447	.333	26.50	79.58
CLARENDON	.579	.302	30.71	101.70
CLARKSVILLE	4.307	.692	53.86	77.83
CISCO	4.546	.593	41.50	69.98
CLEBURNE	19.779	.990	62.89	63.52
CLEVELAND	15.194	1.942	102.73	52.90
CLIFTON	3.697	.615	52.67	85.64
COLEMAN	4.140	.362	32.50	89.78
COLUMBIA-BRAZORIA	10.924	1.534	87.95	57.34
COMAL	4.042	.911	78.35	97.40
COMANCHE	3.403	.466	36.33	83.33
COMMERCE	12.037	1.237	52.87	42.74
CONROE	31.282	1.595	82.01	51.42
COOPER	3.217	.726	43.13	59.40
CORPUS CHRISTI	255.887	1.007	60.20	59.78
CORRIGAN-CAMDEN	3.433	1.331	88.50	66.49
COVINGTON	3.051	1.414	41.00	29.00
CROCKETT COUNTY	.336	.354	22.50	63.56
CROSBYTON	1.760	.354	29.00	81.92
CUERO	6.978	.704	47.82	67.92
CULBERSON COUNTY	.253	.394	28.75	72.97
CYPRESS-FAIRBANKS	44.651	1.242	109.07	87.82
DAINGERFIELD	15.616	2.054	90.38	44.00
DALHART	1.624	.198	23.37	118.06
DALLAS COUNTY	283.169	2.279	89.65	39.34
DANBURY	7.258	.556	55.00	98.92
DEER PARK	158.526	2.275	44.98	19.77
DELMAR	3.297	.976	46.86	48.01
DEL VALLE	21.908	1.352	95.50	70.64
DENISON	49.550	1.653	59.14	35.78
DENTON	43.765	1.878	74.21	39.52
DEWEYVILLE	3.401	1.713	78.80	46.00
DIMMITT	3.910	.571	39.33	68.88
DRIPPING SPRINGS	2.008	.659	56.78	86.16
DUMAS	4.554	.428	40.11	93.72

(continued)

TABLE B3. DEMOGRAPHIC CHARACTERISTICS OF 331 TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

District Name	PARDEN	Linear Density	Load Factor	Ave. Rt. Length
EAGLE PASS	4.285	1.406	95.31	67.79
EANES	45.032	2.565	98.57	38.43
EDINBURG	8.702	1.234	80.15	64.95
ECTOR COUNTY	23.342	1.664	78.68	47.28
EDNA	4.841	.686	51.33	74.83
EL CAMPO	8.411	1.418	76.93	54.25
EL PASO	262.221	3.466	94.10	27.20
FABENS	22.629	1.933	34.80	18.00
FAIRFIELD	2.493	.652	52.62	80.70
FARMERSVILLE	7.367	1.060	52.80	49.81
FARWELL	3.854	.716	43.71	61.57
FLOYDADA	3.100	.549	53.89	98.16
FOLLETT	.641	.207	17.00	82.13
FORT STOCKTON	.953	.632	60.50	95.73
FREDERICKSBURG	2.398	.611	53.17	87.02
GAINESVILLE	34.500	1.079	58.29	54.02
GALVESTON	118.989	1.912	97.39	50.94
GEORGETOWN	11.117	1.023	71.12	69.53
GIDDINGS	3.549	.700	53.13	75.89
GLADEWATER	15.211	2.110	90.12	42.71
GLEN ROSE	2.675	.645	42.57	66.00
GRAHAM	3.874	.791	51.42	65.00
GRANBURY	5.098	1.069	75.83	70.94
GRANDFALLS-ROYALTY	1.506	.610	35.00	57.38
GRANDVIEW	4.933	1.000	57.50	57.50
GRAND SALINE	7.209	1.071	70.00	65.36
GRANGER	3.402	.397	23.75	59.82
GOLDTHWAITE	1.553	.422	32.29	76.51
GOLIAD	1.394	.610	51.87	85.03
GONZALES	4.305	.855	63.87	74.70
GORDON	1.167	.371	27.67	74.57
GORMAN	2.743	.229	23.00	100.44
GREGORY-PORTLAND	33.535	2.966	164.00	55.29
GROESBECK	1.807	.472	38.64	81.86
GROVETON	1.502	.648	50.50	77.93
GUSTINE	1.437	.513	27.40	53.41
HAMLIN	3.211	.464	31.80	68.53
HARLINGEN	125.778	1.977	162.50	82.20
HARRISON COUNTY	15.795	1.374	70.91	51.61
HEMPHILL	2.529	.831	59.00	71.00
HENDERSON	8.430	.978	65.07	66.53
HENRIETTA	1.687	.358	35.71	99.76
HEREFORD	7.189	.629	58.65	93.25
HILLSBORO	9.006	.734	43.71	59.56
HOLLAND	3.368	.462	28.67	62.05
HONEY GROVE	3.144	.539	38.83	72.05
HOUSTON	616.855	2.343	139.62	59.59
HUNTSVILLE	5.559	1.472	99.52	67.61
HURST-EULESS-BEDFORD	360.977	3.671	150.06	40.88
INDUSTRIAL	2.351	.779	43.18	55.43

(continued)

TABLE B3. DEMOGRAPHIC CHARACTERISTICS OF 331 TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

District Name	PARDEN	Linear Density	Load Factor	Ave. Rt. Length
IRAAN-SHEFFIELD	.448	.308	28.80	93.51
IOWA PARK CONS.	11.517	1.318	92.12	69.90
ITALY	7.929	.824	46.67	56.63
IREDELL	.590	.587	27.00	46.00
ITASCA	4.088	.957	45.00	47.02
JACKSBORO	1.519	.318	28.25	88.84
JASPER	7.589	1.449	92.78	64.03
JIM HOGG COUNTY	1.094	.147	19.33	131.52
JOHNSON CITY	.743	.309	31.60	102.27
JONESBORO	1.149	.253	22.50	88.93
JUNCTION	.676	.319	31.88	99.92
KAUFMAN	8.699	1.684	100.00	59.38
KEMP	4.500	.933	62.50	66.99
KENEDY	8.007	1.427	75.00	52.56
KERRVILLE	17.313	1.988	93.71	47.14
KILLEEN	27.071	1.996	114.53	57.55
KINGSVILLE	64.085	5.000	150.00	30.00
KNOX CITY	4.538	.489	32.00	65.44
KOUNTZE	5.594	1.616	87.60	54.41
LAGRANGE	4.181	.982	56.14	57.17
LAMAR CONS.	21.912	1.911	85.29	44.63
LAMESA	9.641	1.160	104.36	89.96
LAMPASAS	3.216	.719	52.11	72.48
LANEVILLE	3.822	.978	39.67	40.56
LAREDO	1303.071	1.359	52.00	38.26
LEAKEY	.477	.441	26.33	59.71
LEVELLAND	9.612	1.147	63.35	55.23
LIBERTY HILL	1.991	.603	57.67	95.63
LIBERTY	15.782	2.324	119.00	51.20
LLANO	1.121	.508	52.09	102.54
LITTLEFIELD	7.565	.500	28.75	57.50
LOCKHART	8.636	1.010	55.88	55.33
LONGVIEW	71.175	1.838	62.37	33.93
LORAINE	2.278	.720	42.50	59.03
LUBBOCK	349.057	1.218	51.56	42.33
LUFKIN	43.576	2.462	105.96	43.04
MCADOO	.853	.451	26.33	58.39
MCALLEN	167.153	4.608	227.27	49.32
MALAKOFF	6.657	.784	55.57	70.88
MANOR	8.172	1.732	74.00	42.73
MARBLE FALLS	4.141	.903	60.50	67.00
MARFA	.244	.462	39.00	84.42
MARION COUNTY	4.327	1.011	58.39	57.76
MASON	.658	.421	40.00	95.01
MEGARGEL	.847	.419	24.50	58.47
MEMPHIS	3.396	.361	24.67	68.33
MENARD	.582	.202	19.17	94.88
MESQUITE	295.746	2.721	123.79	45.49
MIAMI	.257	.154	15.50	100.65
MIDLAND	19.504	1.534	127.34	83.01

(continued)

TABLE B3. DEMOGRAPHIC CHARACTERISTICS OF 331 TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

District Name	PARDEN	Linear Density	Load Factor	Ave. Rt. Length
MIDWAY	2.692	.393	26.17	66.58
MILFORD	.571	.314	22.00	70.06
MINERAL WELLS	38.587	2.000	100.00	50.00
MISSION	187.120	4.028	142.33	35.34
MONAHANS-WICKT-PYOTE	5.924	1.392	69.62	50.02
MOODY	4.559	.774	46.60	60.21
MOTLEY COUNTY	.320	.206	19.17	93.04
MOUNT PLEASANT	19.924	1.153	83.27	72.22
MOUNT VERNON	3.711	.740	42.83	57.88
MULESHOE	3.633	.710	55.64	78.37
MULLIN	.523	.357	26.67	74.70
NACOGDOCHES COUNTY	11.238	.980	76.78	78.34
NATALIA	10.014	1.902	81.80	43.01
NAVARRO	4.867	1.101	59.00	53.59
NAVASOTA	5.754	1.172	69.09	58.95
NECHES	2.603	.431	50.00	116.01
NEW SUMMERFIELD	2.981	1.061	39.00	36.76
NIXON	3.559	.565	37.67	66.67
NORDHEIM	1.750	.489	29.33	59.99
NORTHSIDE(WILBARGER)	1.378	.708	31.50	44.49
NORTHSIDE (BEXAR)	67.137	1.863	142.61	76.55
NORTH EAST	204.265	3.007	150.39	50.01
OLNEY	4.075	.526	32.20	61.22
ORE CITY	5.579	1.565	67.60	43.19
OVERTON	14.857	2.000	50.00	25.00
PADUCAH	.751	.225	21.75	96.67
PALESTINE	14.186	1.633	98.62	60.39
PAMPA	10.229	.392	25.45	64.94
PARIS	183.522	4.243	157.00	37.00
PASADENA	418.256	2.808	216.26	77.02
PEARLAND	93.233	3.476	134.78	38.77
PEARSALL	2.484	.526	49.62	94.34
PAWNEE	1.340	.436	25.00	57.34
PECOS-BARSTOW	2.676	.447	45.23	101.19
PERRYTON	2.728	.241	26.17	108.58
PLAINS	.790	.318	27.87	87.66
PLAINVIEW	15.377	.922	56.72	61.52
PITTSBURG	7.451	.989	52.21	52.79
PLEASANTON	4.492	.945	71.67	75.84
PRARIE LEA	2.538	1.319	62.00	47.01
PONDER	2.741	.919	57.00	62.02
PORT ARTHUR	260.725	1.505	103.44	68.73
POST	1.367	.349	30.25	86.68
PUTNAM	.487	.527	48.00	91.08
QUEEN CITY	6.367	.901	58.57	65.01
RANKIN	.489	.324	55.33	170.78
RAYMONDVILLE	31.417	1.500	67.80	45.20
REFUGIO	3.740	2.097	86.33	41.17
RICE CONS.	3.694	.859	65.73	76.52
RICHARDSON	771.231	3.788	151.52	40.00

(continued)

TABLE B3. DEMOGRAPHIC CHARACTERISTICS OF 331 TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

District Name	PARDEN	Linear Density	Load Factor	Ave. Rt. Length
RICHLAND SPRINGS	.464	.244	26.25	107.58
RIO GRANDE CITY	6.910	1.019	115.08	112.94
ROBSTOWN	55.736	1.436	67.80	47.21
ROBY	1.974	.430	27.50	63.95
ROCKDALE	7.116	.866	56.67	65.43
ROCKSPRINGS	.357	.183	15.37	84.02
ROCKWALL	15.176	1.499	80.78	53.89
ROXTON	1.885	.341	15.75	46.19
ROYAL	5.416	1.512	95.29	63.02
SABINAL	1.535	.281	25.25	89.86
SANTO	1.343	.512	30.29	59.15
SAN ANGELO	67.069	2.483	119.77	48.24
SAN FELIPE-DEL RIO	6.882	2.672	157.91	59.10
SAN MARCOS	20.792	2.736	117.05	42.78
SAN SABA	1.734	.340	34.00	100.00
SCHLEICHER CONS.	.408	.224	20.29	90.56
SEGUIN	12.958	.967	70.44	72.84
SHALLOWATER	9.486	1.279	59.60	46.60
SHAMROCK	2.924	.303	28.67	94.61
SEMINOLE	1.585	.396	41.67	105.22
SEYMOUR	1.029	.328	34.18	104.21
SHERMAN	75.824	2.725	149.42	54.83
SIERRA BLANCA	.163	.089	8.50	95.51
SLATON	18.072	1.992	109.57	55.01
SILSBEE	21.641	2.496	97.00	38.96
SILVERTON	.740	.271	30.00	110.70
SKIDMORE-TYNAN	1.688	.729	35.83	49.15
SLIDELL	.928	.452	23.75	52.54
SLOCUM	1.439	.651	34.00	52.23
SMITHVILLE	3.263	.595	45.25	76.05
SNOOK	3.303	2.273	52.78	23.22
SPEARMAN	2.150	.265	24.62	92.92
SNYDER	5.721	.806	45.95	57.01
SONORA	.527	.184	28.20	153.26
SPRINGLAKE-EARTH	3.713	1.260	63.75	50.60
SPRINGTOWN	8.586	1.837	80.00	43.55
SPRING BRANCH	874.857	2.426	101.33	41.77
STAMFORD	7.160	.502	30.00	59.76
SPUR	1.105	.331	19.83	59.92
STEPHENVILLE	7.679	.671	45.00	67.06
STRATFORD	.849	.181	22.10	122.10
SULPHUR BLUFF	1.402	.676	43.75	64.72
SULPHUR SPRINGS	9.233	1.243	65.00	52.29
TAHOKA	2.869	.451	38.57	85.52
TARKINGTON	3.970	1.560	100.56	64.46
TEMPLE	144.080	.960	48.00	50.00
TEXAS CITY	303.000	10.385	53.51	5.15
THREE RIVERS	1.432	.389	32.37	83.23
TIMPSON	5.130	.869	46.09	53.10
TRENT	1.184	.269	16.25	60.41

(continued)

TABLE B3. DEMOGRAPHIC CHARACTERISTICS OF 331 TEXAS SCHOOL DISTRICTS FOR SCHOOL YEAR 1972-1973 (con't)

District Name	PARDEN	Linear Density	Load Factor	Ave. Rt. Length
TULIA	4.252	.494	41.00	83.00
TURKEY-QUITAQUE	.812	.423	41.00	96.93
TYLER	76.171	1.730	96.24	55.63
VALENTINE	.107	.517	60.00	116.05
VALLEY MILLS	1.887	.508	33.00	64.96
VALLEY VIEW	3.274	.530	35.75	67.45
VAN ALSTYNE	7.627	1.079	51.25	47.50
VEGA	.788	.426	38.00	90.48
WALLIS	8.000	1.142	60.50	52.98
WALL	1.339	.754	54.44	72.21
WALNUT SPRINGS	1.124	.245	22.50	91.84
WARREN	3.426	.933	58.54	62.74
WAXAHACHIE	17.687	1.827	107.92	59.07
WELLINGTON	1.755	.298	21.60	74.48
WELLMAN	1.681	.596	31.00	52.01
WELLS	3.505	.918	45.00	49.02
WESLACO	112.148	1.959	132.53	67.65
WEST ORANGE-COVE	212.586	4.732	176.67	37.33
WHEELER	1.727	.335	15.20	45.37
WICHITA FALLS	169.789	2.136	118.04	55.26
WHITE SETTLEMENT	111.120	2.500	60.00	24.00
WINNSBORO	4.559	.760	44.08	58.00
WINTERS	2.516	.368	26.75	72.69
WOLFE CITY	3.870	.783	42.50	54.28
WOODSON	.596	.294	16.00	54.42
WOODVILLE	5.572	1.196	69.87	58.42
YANTIS	2.431	.911	41.00	45.01
YORKTOWN	3.826	.525	30.00	57.14
YSLETA	553.823	6.162	148.85	24.16
ZAPATA	1.084	.656	61.67	94.00
ZAVALLA	1.406	.506	35.40	69.96

TABLE B4. STATE PROGRAMS FOR FINANCING PUPIL TRANSPORTATION

STATE	Part of Found Program		Basis for State Allocation				Factors Used in the Determination of Local Entitlement						Special Provision for Handicapped		REMARKS
	Yes	No	Flat Grant	Percentage Grant	Actual or Approved Expenditure	Formula	Number of Students	Number of Vehicles	Mileage	Density	Road Conditions	Vehicle Depreciation	Yes	No	
Alabama	✓		-	-	+	+	+	-	-	+	-	+	✓		
Alaska		✓	-	-	+	-	-	-	-	-	-	-		✓	
Arizona															No Program
Arkansas		✓	-	-	-	+	+	-	-	+	-	+		✓	State payment is equalized. State pays approximately 79 percent of actual transportation cost.
California		✓	-	+	+	+	-	+	-	-	-	-	✓		Median state expense per bus plus 25 percent is basis of entitlement.
Colorado		✓	-	-	-	+	-	-	+	-	-	-	✓		
Connecticut		✓	-	+	+	-	-	-	-	-	-	-	✓		State pays 50 percent of actual cost with certain limitations.
Delaware		✓	-	-	+	-	-	-	-	-	-	-		✓	State pays 100 percent of actual cost.
Florida	✓		-	-	-	+	+	-	+	+	-	-	✓		
Georgia	✓		-	-	-	+	-	+	+	-	-	+		✓	Standard costs established through experience are used in the formula.
Hawaii	✓		-	-	+	-	-	-	-	-	-	-	n/a	n/a	Hawaii's entire educational program is fully state funded.
Idaho	✓		-	+	+	-	-	-	-	-	-	-		✓	Density is considered in the foundation program. The transportation entitlement is equalized.
Illinois		✓	-	-	+	-	-	-	-	-	-	-		✓	State payment is equalized by deduction of a qualifying amount based on district assessed valuation.
Indiana	✓		-	-	-	+	+	-	-	+	-	-	✓		District wealth factor is considered in state entitlement.

(continued)

TABLE B4. STATE PROGRAMS FOR FINANCING PUPIL TRANSPORTATION (con't)

STATE	Part of Found Program		Basis for State Allocation				Factors Used in the Determination of Local Entitlement						Special Provision for Handicapped		REMARKS
	Yes	No	Flat Grant	Percentage Grant	Actual or Approved Expenditure	Formula	Number of Students	Number of Vehicles	Mileage	Density	Road Conditions	Vehicle Depreciation	Yes	No	
Iowa	✓		-	+	-	-	-	-	-	-	-	-	✓		
Kansas	✓		-	+	+	+	+	-	-	+	-	-	✓		State payment consists of percent of actual cost or an amount determined by density.
Kentucky	✓		-	-	-	+	+	-	-	+	-	-		✓	
Louisiana	✓		-	-	-	+	-	-	-	-	-	-		✓	State entitlement is based on bus driver operator salary and bus operating costs.
Maine	✓		-	+	-	-	-	-	-	-	-	-	✓		State entitlement based on equalized percentage grant.
Maryland	✓		-	-	+	-	-	-	-	-	-	-		✓	State pays 100 percent of approved costs which results in 90 percent payment of actual cost.
Massachusetts		✓	-	-	+	-	-	-	-	-	-	-	✓		State pays 100 percent of costs above $5.00 per pupil local contribution.
Michigan	✓		-	+	+	-	-	-	-	-	-	-		✓	State pays 73 percent of approved cost.
Minnesota		✓	-	+	-	-	-	-	-	-	-	-	✓		State pays 80 percent of per pupil cost.
Mississippi	✓		-	-	-	+	+	-	-	+	-	-		✓	
Missouri	✓		-	-	-	+	+	-	+	+	-	-		✓	State pays full formula determined costs.
Montana		✓	-	-	-	+	+	-	+	-	-	-	✓		Bus capacity considered in state entitlement.
Nebraska	✓		-	+	-	-	-	-	-	-	-	-		✓	Each student transported counts as 1.25 students under state foundation plan.
Nevada	✓		-	+	-	-	-	-	-	-	-	-		✓	State entitlement is .60 of previous years total expenditure.

(continued)

TABLE B4. STATE PROGRAMS FOR FINANCING PUPIL TRANSPORTATION 9con't)

STATE	Part of Found Program		Basis for State Allocation				Factors Used in the Determination of Local Entitlement						Special Provision for Handicapped		REMARKS
	Yes	No	Flat Grant	Percentage Grant	Actual or Approved Expenditure	Formula	Number of Students	Number of Vehicles	Mileage	Density	Road Conditions	Vehicle Depreciation	Yes	No	
New Hampshire															No program.
New Jersey		✓	-	+	+	-	-	-	-	-	-	-		✓	State pays 75 percent of approved cost.
New Mexico		✓	-	-	+	+	-	+	+	-	+	+		✓	
New York	✓		-	+	+	-	-	-	-	-	-	-		✓	State pays 90 per cent of approved cost.
North Carolina		✓	-	-	+	-	-	-	-	-	-	-		✓	Operating costs and newer replacement buses are fully State Funded.
North Dakota	✓		-	-	-	+	-	-	+	-	-	-	✓		State pays $.16 per bus mile round trip.
Ohio		✓	-	-	-	+	+	-	+	-	-	-		✓	State payment includes a bus purchase subsidy which is equalized.
Oklahoma	✓		-	+	-	+	+	-	-	+	-	-		✓	State grants emergency loans bus purchase.
Oregon		✓	-	+	+	-	-	-	-	-	-	-		✓	State pays 60 per cent of approved cost.
Pennsylvania		✓	-	-	+	+	-	-	-	-	-	+		✓	State payment partially determined by school district wealth.
Rhode Island	✓		-	-	-	-	-	-	-	-	-	-		✓	
South Carolina		✓	-	-	+	-	-	-	-	-	-	-	✓		State payment constitutes 100 per cent of actual expenditure.

(continued)

TABLE B4. STATE PROGRAMS FOR FINANCING PUPIL TRANSPORTATION 9con't)

STATE	Part of Found Program		Basis for State Allocation				Factors Used in the Determination of Local Entitlement						Special Provision for Handicapped		REMARKS
	Yes	No	Flat Grant	Percentage Grant	Actual or Approved Expenditure	Formula	Number of Students	Number of Vehicles	Mileage	Density	Road Conditions	Vehicle Depreciation	Yes	No	
South Dakota	✓		-	+	-	+	-	-	+	-	-	-		✓	State payment not to exceed $.18 per mile.
Tenneasee	✓		-	-	-	+	+	-	-	-	-	-	✓		State pays $10.00 per transported pupil. This amount is then equalized through the foundation plan.
Texas	✓		-	-	-	+	+	-	+	-	+	-		✓	
Utah	✓		+	+	-	+	+	-	+	-	-	-		✓	District may choose a percentage of flat grant for state allocation.
Vermont															No program.
Virginia		✓	-	-	-	+	+	+	+	-	-	-		✓	
Washington		✓	-	+	+	+	-	-	-	-	-	+		✓	
West Virginia	✓		-	+	+	-	-	-	-	-	-	-		✓	State payment limited to 133 per cent of state average cost per mile.
Wisconain		✓	+	-	-	-	+	-	-	-	-	-	✓		
Wyoming	✓	—	-	+	+	-	-	-	-	-	-	+	—	✓	
TOTALS	27	20	2	19	20	24	16	4	12	9	2	7	16	30	

SOURCE: Thomas L. Johns, PUBLIC SCHOOL FINANCE PROGRAM, 1971-72, Washington, D.C., U.S., Department of Health, Education and Welfare, 1972.

APPENDIX C

EVALUATION OF PREDICTIVE MODEL

TABLE C1. COMPARISON OF ACTUAL AND ESTIMATED M & O EXPENDITURES FOR REGULAR PUPIL TRANSPORTATION PARDEN 1

DISTRICT NAME	PANDEN	LD	ACT. C/P	EST. C/P	C/P DIFF.	ACT. TC	EST. TC	TC DIFF.	PCT. DIFF.	PCT. TRANS	PCT. MUD.
ALVANY	.840	.289	112.83	126.57	12.59	16564	16194	1630	11.19	2.52	.28
ALPINE	.811	.144	463.02	212.43	-210.79	21374	10824	-10750	-49.83	1.47	-.73
ASPERMONT	.909	.288	110.64	126.78	14.20	13940	15737	1797	12.89	3.12	.40
BALMORHEA	.931	1.071	94.90	95.74	.80	8853	9010	157	1.77	2.05	.09
BONDEN	.822	.200	286.69	165.88	-143.81	48128	24946	-17182	-42.82	8.31	-3.56
BRACKETT	.875	.188	144.52	173.48	28.55	17934	20423	3369	19.76	3.17	.61
BRUCKELAND	1.123	.778	54.03	58.40	4.37	9455	10221	765	8.10	4.31	.35
CANADIAN	.957	.196	260.87	187.80	-79.22	29377	19950	-9427	-32.09	3.87	-1.24
CENTERVILLE (LEON)	1.325	.497	76.16	82.28	6.14	29467	31596	2349	8.03	5.25	.42
CHEROKEE	.990	.393	76.52	98.47	23.95	8894	11422	2778	32.14	N/A	
CHILLICOTHE	1.467	.333	139.43	111.77	-27.86	22170	17772	-4398	-19.84	6.71	-1.33
CLARENDON	.979	.302	103.85	120.43	16.60	22347	25896	3569	15.98	3.91	.61
CROCKETT COUNTY	.938	.354	219.28	106.88	-112.40	29000	14400	-15200	-51.35	3.15	-1.62
CULBERSON COUNTY	.853	.394	174.78	98.46	-76.46	20490	11702	-8788	-43.74	1.91	-.66
FOLLETT	.841	.207	158.71	160.79	2.08	5396	5467	71	1.31	.48	.01
FORT STOCKTON	.953	.632	93.18	68.47	-24.71	56372	41422	-14950	-26.52	1.35	-.38
GOLIAD	1.396	.610	55.24	70.35	15.11	6249	5739	1752	27.34	2.92	.40
GONDON	1.167	.371	86.75	102.90	16.16	7290	8541	1341	18.63	4.75	.68
GUSTINE	1.437	.913	81.20	80.31	-.94	11132	11003	-129	-1.16	7.55	-.09
IRAAN-SHEFFIELD	.948	.308	249.35	118.95	-140.70	35330	17085	-18245	-51.64	4.18	-2.10
IREDELL	.990	.587	101.20	72.45	-28.76	5905	3912	-1553	-28.42	4.83	-1.37
JIM HOGG COUNTY	1.099	.147	295.33	208.91	-86.41	29018	24234	-5304	-18.18	2.45	-.43
JOHNSON CITY	.763	.309	84.60	118.35	33.75	13367	18700	5333	39.90	4.44	1.77
JONESBORO	1.169	.293	108.37	137.91	31.54	9573	12612	2839	29.66	7.54	2.29
JUNCTION	.878	.319	78.72	115.50	38.79	19963	29454	9890	50.56	3.45	1.75
LEAKEY	.977	.441	192.81	90.16	-12.65	8142	7123	-999	-12.30	3.98	-.49
LLANO	1.121	.508	71.32	80.92	9.59	40868	46365	5497	13.45	4.88	.62
MANFA	.264	.462	81.85	87.01	25.16	9908	13573	3925	40.69	1.64	.67
MASON	.658	.421	109.09	93.42	-15.67	43024	37367	-6267	-14.36	8.10	-1.16
MCADOO	.853	.451	109.25	88.83	-20.83	8931	7302	-1629	-18.88	6.19	-1.17
MEDARGEL	.847	.419	86.31	93.76	9.45	4131	4594	463	11.21	.87	.10
MENARD	.982	.202	211.25	183.83	-47.43	24494	18840	-5654	-22.45	15.92	-3.57
MIAMI	.257	.154	286.60	201.61	-84.99	17769	12500	-5269	-29.65	4.81	-1.43
MILFORD	.571	.314	105.26	116.91	11.65	4631	5144	512	11.07	2.67	.30
MOTLEY COUNTY	.320	.206	140.30	161.39	21.09	10134	10560	2426	15.03	3.58	.54
MULLIN	.964	.357	101.84	105.98	4.14	8147	8478	331	4.07	6.44	.26
NORTHSIDE(WILBARGER)	1.378	.708	83.64	62.77	-20.86	10538	7909	-2629	-24.95	6.19	-1.54
PADUCAH	.751	.225	143.46	150.80	5.40	25310	26249	939	3.71	5.36	.20
PAWNEE	1.348	.436	98.39	90.95	-7.44	12299	11369	-930	-7.56	4.68	-.35
PLAINS	.790	.318	130.20	115.78	-14.42	29035	25819	-3216	-11.08	3.59	-.40
POST	1.367	.349	140.40	107.83	-32.57	33978	26095	-7883	-23.20	2.94	-.68
PUTNAM	.487	.527	31.29	78.67	47.38	1902	3776	2274	151.42	1.71	2.59
RANKIN	.689	.324	145.90	114.14	-31.77	24420	18947	-5273	-21.77	5.63	-1.23
RICHLAND SPRINGS	.964	.244	130.11	141.79	11.67	13662	14886	1226	8.97	N/A	
ROCKSPRINGS	.357	.183	100.60	176.68	76.08	12374	21732	9358	75.63	3.15	2.39
SANTO	1.343	.512	63.26	80.44	17.18	13410	17051	3641	27.15	6.41	1.74
SCHLEICHER CONS.	.408	.224	166.21	151.37	-14.84	23002	21495	-2137	-8.93	3.94	-.35
SEYMOUR	1.029	.328	94.98	113.07	53.19	22314	42515	20001	88.84	3.05	2.71
SIERRA BLANCA	.183	.089	154.35	306.66	152.31	2624	5213	2589	98.68	1.29	1.26
SILVERTON	.748	.271	93.13	130.83	37.72	13970	19827	5657	40.50	3.50	1.40
SLIDELL	.928	.452	92.11	88.88	-3.63	8750	8405	-345	-3.94	5.10	-.20
SLOCUM	1.439	.451	84.37	66.93	-17.44	14363	11379	-2984	-20.67	6.65	-1.37
SONORA	.527	.184	129.69	175.95	46.26	18206	24809	6523	35.67	2.33	.83
SPUR	1.105	.331	104.50	112.27	-49.27	19225	13302	-5863	-30.50	3.99	-1.22
STRATFORD	.849	.181	196.70	178.18	-18.53	43671	39377	-4094	-9.42	4.54	-.43
SULPHUR BLUFF	1.402	.676	54.86	65.03	10.15	9804	11380	1776	18.50	6.38	1.18
THREE RIVERS	1.432	.389	98.42	99.24	.82	25491	25704	213	.83	3.96	.03
TRENT	1.184	.269	113.26	131.59	16.34	7493	8553	1060	14.15	3.93	.54
TURKEY-QUITAQUE	.812	.423	96.29	93.08	-3.21	15792	15265	-527	-3.34	1.78	-.06
VALENTINE	.107	.517	61.18	79.84	18.65	3671	4790	1119	30.49	3.24	.99
VEGA	.788	.428	79.65	93.59	13.94	12147	14265	2119	17.50	2.28	.40
WALL	1.339	.754	40.10	59.84	19.74	19048	29312	9664	49.19	4.42	2.18
WALNUT SPRINGS	1.124	.249	116.82	141.34	26.52	5107	6300	1193	23.10	4.66	1.06
WOODSON	.596	.294	187.46	122.96	-64.50	8011	5934	-2077	-34.55	3.57	-1.23
ZAPATA	1.086	.656	108.48	66.94	-41.53	40136	24621	-15515	-38.66	3.29	-1.27
ZAVALLA	1.408	.506	80.80	81.16	.36	14302	14365	63	.44	8.41	.03

AVE. ACTUAL C/P	=	124.03
AVE. ESTIMATED C/P	=	116.75
TOTAL ACTUAL COST	=	1211503
TOTAL ESTIMATED COST	=	1102726
DIFF. IN TOTAL COST	=	-108837
TOTAL ABSOLUTE DIFF.	=	309281
AVE. ABSOLUTE DIFF.	=	4666
AVE. PCT. DIFF.	=	26.88

TABLE C2. COMPARISON OF ACTUAL AND ESTIMATED M & O EXPENDITURES FOR REGULAR PUPIL TRANSPORTATION PARDEN 2

DISTRICT NAME	PARDEN	LD	ACT. C/P	EST. C/P	C/P DIFF.	ACT. TC	EST. TC	TC DIFF.	PCT. DIFF.	PCT. TRANS	PCT. BUD.
ANDREWS	1.617	.430	152.09	92.01	-60.08	66461	40207	-26254	-39.50	1.36	-.54
AVERY	2.316	.764	71.72	60.24	-11.49	17429	14638	-2791	-16.01	6.26	-1.00
BALLINGER	2.729	.385	93.16	99.82	6.65	26272	28148	1876	7.14	2.41	.17
BANDERA	2.586	.598	57.99	72.16	14.17	24413	30378	5965	24.43	4.62	1.13
BOVINA	2.784	.384	113.34	100.01	-13.33	21308	18801	-2506	-11.76	3.92	-.46
BRADY	2.104	.437	95.12	90.92	-4.20	23874	22821	-1053	-4.41	2.17	-.10
BRECKENRIDGE	1.755	.241	137.01	140.97	3.96	35622	36652	1029	2.89	3.17	.09
BREMOND	1.888	.538	84.70	78.00	-6.70	18041	16615	-1426	-7.91	6.01	-.47
BROOKS COUNTY	2.470	.617	103.44	70.51	-32.92	50477	34410	-16067	-31.83	2.17	-.69
BURNET	2.229	.411	47.53	71.02	13.49	46427	57315	10888	23.45	3.38	.79
CARRIZO SPRINGS	1.803	.546	49.66	77.16	27.52	20652	32098	11446	55.43	.81	.45
CHILDRESS	1.808	.304	170.69	119.79	-51.89	29017	20195	-8822	-30.41	3.37	-1.02
CROSBYTON	1.760	.354	77.86	106.19	28.32	15806	21556	5750	36.38	2.13	.77
DALHART	1.624	.198	193.95	162.93	-31.01	36268	30469	-5799	-15.99	3.47	-.55
DRIPPING SPRINGS	2.008	.459	43.94	67.17	23.23	22454	34325	11871	52.87	2.57	1.36
FAIRFIELD	2.493	.452	51.82	67.70	15.89	35442	46309	10867	30.66	2.00	.61
FREDERICKSBURG	2.398	.611	42.27	71.02	8.75	39729	45312	5583	14.05	2.53	.36
GLEN ROSE	2.675	.645	63.17	68.24	5.07	18826	20337	1511	8.02	5.03	.40
GOLDTHWAITE	1.593	.422	57.04	93.29	36.25	12891	21083	8192	63.55	4.06	2.58
GORMAN	2.743	.229	96.55	146.37	49.83	11103	16833	5730	51.61	4.69	2.42
GRANDFALLS-ROYALTY	1.506	.410	97.80	71.11	-26.69	10269	7466	-2803	-27.29	2.77	-.76
GROESBECK	1.807	.472	44.82	85.90	1.08	36048	36508	460	1.28	3.03	.04
GROVETON	1.502	.648	90.35	68.01	-22.34	36502	27476	-9025	-24.73	5.88	-1.45
HEMPHILL	2.528	.831	48.41	56.62	8.21	45696	53450	7753	16.97	5.80	.98
HENRIETTA	1.687	.358	74.35	105.31	30.96	18588	26328	7740	41.64	3.04	1.27
INDUSTRIAL	2.351	.779	87.13	59.38	-27.75	41386	28206	-13179	-31.85	3.92	-1.25
JACKSBORO	1.519	.318	126.76	114.92	-11.84	28648	25971	-2676	-9.34	3.37	-.31
LIBERTY HILL	1.991	.603	79.16	71.72	-7.45	13695	12407	-1288	-9.41	9.11	-.86
LORAINE	2.278	.720	112.82	62.93	-49.89	19180	10698	-8482	-44.22	6.17	-2.73
MIDWAY	2.692	.393	69.14	98.31	29.18	10854	15435	4581	42.20	5.78	2.44
NECHES	2.803	.431	58.26	91.85	33.59	14564	22963	8399	57.67	4.56	2.63
NEW SUMMERFIELD	2.981	1.061	47.85	47.29	-.56	7465	7377	-88	-1.17	5.05	-.06
NORDHEIM	1.750	.489	94.20	83.69	-10.51	8290	7365	-925	-11.16	4.02	-.45
PEARSALL	2.484	.426	86.03	79.31	-6.72	34153	31486	-2667	-7.81	2.28	-.18
PECOS-BARSTOW	2.676	.447	90.80	89.42	8.62	47508	52577	5069	10.67	1.03	.11
PERRYTON	2.728	.241	158.14	140.97	-17.17	49656	44264	-5392	-10.86	2.34	-.25
PONDER	2.741	.919	48.66	52.57	3.91	5547	5993	446	8.05	3.17	.26
PRAIRIE LEA	2.538	1.119	17.50	40.28	2.78	4650	4995	345	7.42	2.59	.19
ROBY	1.974	.430	96.60	92.01	-4.59	15939	15181	-758	-4.75	5.54	-.26
ROXTON	1.885	.341	149.86	109.15	-40.70	9441	6877	-2564	-27.16	5.36	-1.46
SABINAL	1.535	.281	97.47	125.89	28.41	9845	12714	2869	29.15	2.29	.67
SAN SABA	1.734	.340	85.08	109.39	24.31	20248	26035	5787	28.58	2.45	.70
SEMINOLE	1.585	.396	123.08	97.77	-25.31	76925	61103	-15822	-20.57	3.29	-.68
SHAMROCK	2.924	.303	142.83	119.08	-23.74	12283	10241	-2042	-16.62	2.20	-.37
SKIDMORE-TYNAN	1.688	.729	51.67	62.36	10.69	11109	13407	2298	20.68	2.73	.56
SPEARMAN	2.150	.265	156.99	131.44	-25.55	30927	25894	-5033	-16.27	2.41	-.39
TAHOKA	2.869	.451	67.27	88.83	21.56	18162	23984	5822	32.06	2.10	.67
VALLEY MILLS	1.887	.508	67.31	81.37	14.06	11106	13426	2320	20.89	4.23	.88
WELLINGTON	1.755	.290	140.70	122.99	-37.71	17356	13283	-4073	-23.47	3.15	-.74
WELLMAN	1.681	.596	94.99	72.33	-22.66	17669	13454	-4215	-23.85	2.24	-.53
WHEELER	1.727	.335	149.75	110.59	-39.16	11381	8405	-2976	-26.15	2.70	-.71
WINTERS	2.516	.168	110.31	103.19	-7.11	23606	22083	-1522	-6.45	3.15	-.20
YANTIS	2.431	.911	54.40	52.91	-1.49	8922	8678	-244	-2.74	2.80	-.08

AVE. ACTUAL C/P	=	92.98
AVE. ESTIMATED C/P	=	89.69
TOTAL ACTUAL COST	=	1300130
TOTAL ESTIMATED COST	=	1284235
DIFF. IN TOTAL COST	=	15895
TOTAL ABSOLUTE DIFF.	=	285092
AVE. ABSOLUTE DIFF.	=	5378
AVE. PCT. DIFF.	=	22.48

TABLE C3. COMPARISON OF ACTUAL AND ESTIMATED M & O EXPENDITURES FOR REGULAR PUPIL TRANSPORTATION PARDEN 3

DISTRICT NAME	PARDEN	LD	ACT. C/P	EST. C/P	C/P DIFF.	ACT. TC	EST. TC	TC DIFF.	PCT. DIFF.	PCT. TRANS	PCT. BUD.
ABERNATHY	5.851	.791	41.00	61.07	20.07	18122	26991	8869	48.94	1.04	.51
ALBA-GOLDEN	3.530	1.215	44.51	47.61	3.09	14111	15091	980	6.95	4.78	.33
ANAHUAC	3.175	.989	71.43	53.64	-17.79	50786	38140	-12646	-24.90	2.98	-.74
AVINGER	4.196	.643	70.15	68.86	-1.29	7576	7437	-139	-1.83	3.14	-.06
BARTLETT	4.948	1.256	70.61	46.70	-23.91	11085	7332	-3753	-33.86	3.06	-1.03
BASTROP	4.196	.991	47.41	53.58	6.17	55000	62153	7153	13.01	12.56	1.63
BECKVILLE	3.373	.824	77.17	59.63	-17.53	22378	17294	-5084	-22.72	1.30	-.30
BIG SANDY	3.198	1.500	33.92	42.13	8.21	13228	16430	3202	24.21	1.47	.36
BLUE RIDGE	4.567	1.089	43.52	50.73	7.21	9095	10802	1507	16.57	3.24	.54
BOERNE COUNTY LINE	3.652	.964	37.80	54.45	16.64	22002	31687	9686	44.02	2.03	.89
BOLING	6.308	1.751	37.65	38.51	.86	29407	30078	671	2.28	3.53	.08
BOWIE	5.891	1.050	41.95	51.81	9.86	27984	34559	6575	23.50	2.40	.56
BRENHAM	7.642	.844	50.12	58.81	8.70	104139	122209	18070	17.35	3.16	.55
BROWNFIELD	7.180	.773	58.15	61.89	3.74	41110	43754	2644	6.43	1.56	.10
CANYON	3.856	.842	54.67	58.89	4.22	83209	89633	6424	7.72	3.19	.25
CARTHAGE	3.918	.695	42.38	65.83	3.45	112284	118485	6201	5.52	4.79	.26
CHICO	4.010	.809	40.40	60.27	19.87	10586	15792	5206	49.17	3.40	1.67
CISCO	4.546	.593	70.94	72.17	1.23	17664	17971	307	1.74	2.83	.05
CLARKSVILLE	4.307	.692	59.99	65.99	6.00	45235	49757	4522	10.00	2.75	.28
CLIFTON	3.697	.615	49.56	70.66	21.10	15662	22330	6668	42.57	1.89	.81
COLEMAN	4.140	.362	91.06	96.10	5.04	11838	12493	655	5.53	1.28	.07
COMAL	4.042	.911	48.08	56.26	8.18	110930	129795	18865	17.01	2.86	.49
COMANCHE	3.403	.466	77.95	83.00	5.05	36326	38680	2354	6.48	4.17	.27
COOPER	3.217	.726	57.15	64.18	7.03	19717	22142	2425	12.30	3.19	.39
CORRIGAN-CAMDEN	3.433	1.331	44.31	45.15	1.16	24591	23977	-615	-2.50	3.34	-.08
COVINGTON	3.051	1.414	44.82	43.60	-1.22	3675	3575	-100	-2.72	3.32	-.09
CUERO	6.978	.704	66.09	65.34	-.76	34766	34367	-399	-1.15	1.73	-.02
DANBURY	7.258	.656	53.96	74.92	20.96	5936	8241	2305	38.84	1.37	.53
DELMAR	3.297	.976	60.72	54.06	-6.66	19915	17731	-2184	-10.97	7.41	-.83
DEWEYVILLE	3.401	1.713	41.18	39.01	-2.18	16226	15368	-858	-5.29	2.50	-.13
DIMMITT	3.910	.571	82.10	73.77	-8.33	48439	43527	-4912	-10.14	2.42	-.25
DUMAS	4.554	.428	165.57	87.20	-78.37	59770	31480	-28290	-47.33	1.83	-.87
EAGLE PASS	4.285	1.406	38.09	43.74	5.65	47195	54194	6999	14.83	.84	.12
EDNA	4.841	.686	76.42	66.32	-10.09	35304	30642	-4662	-13.21	1.96	-.26
FARMERSVILLE	7.367	1.060	46.70	51.53	4.82	12330	13604	1273	10.33	2.19	.23
FARWELL	3.854	.710	49.82	65.01	4.80	21364	19895	-1469	-6.88	3.77	-.26
FLOYDADA	3.100	.549	86.07	75.47	-10.60	41744	36605	-5139	-12.31	3.04	-.37
GIDDINGS	3.549	.700	58.23	69.55	7.32	24750	27860	3110	12.56	2.79	.35
GONZALES	4.305	.855	67.66	58.37	-9.29	64815	55919	-8896	-13.73	3.20	-.44
GRAHAM	3.874	.791	62.70	61.07	-1.64	38689	37677	-1012	-2.61	2.68	-.07
GRANBURY	5.098	1.469	43.89	51.28	7.39	39941	46661	6721	16.83	1.97	.33
GRAND SALINE	7.209	1.071	43.86	51.22	7.36	18421	21513	3092	16.78	2.98	.50
GRANDVIEW	4.933	1.000	41.21	53.30	12.09	9479	12259	2780	29.33	2.70	.79
GRANGER	3.402	.397	88.52	91.09	2.57	8409	8654	244	2.91	2.04	.06
HAMLIN	3.211	.464	101.35	83.21	-18.14	16115	13231	-2884	-17.90	2.29	-.41
HEREFORD	7.189	.829	58.66	69.75	11.08	89461	106365	16904	18.90	1.88	.34
HOLLAND	3.368	.462	74.30	83.42	9.12	6390	7174	784	12.27	2.82	.35
HONEY GROVE	3.144	.539	71.66	76.28	4.62	16698	17774	1076	6.45	3.75	.24
HUNTSVILLE	5.559	1.472	57.89	42.59	-15.30	167071	122919	-44151	-26.43	4.81	-1.27
ITALY	7.929	.824	66.54	59.63	-6.91	9316	8349	-967	-10.38	2.96	-.31
ITASCA	4.088	.957	44.49	54.68	10.19	14013	17223	3210	22.91	3.16	.72
JASPER	7.589	1.449	38.18	42.98	4.81	81470	91725	10255	12.59	3.33	.42
KEMP	4.500	.933	39.02	55.49	16.47	19508	27744	8236	42.22	3.45	1.46
KNOX CITY	4.538	.489	118.43	80.72	-37.71	7579	5166	-2414	-31.84	.98	-.31
KOUNTZE	5.594	1.418	35.89	40.43	4.54	31443	35420	3977	12.65	3.05	.39

TABLE C3. COMPARISON OF ACTUAL AND ESTIMATED M & O EXPENDITURES FOR REGULAR PUPIL TRANSPORTATION PARDEN 3 (con't)

LAGRANGE	4.181	.982	47.48	53.86	6.38	37319	42338	5018	13.45	3.32	.45
LAMPASAS	3.216	.719	50.08	64.54	14.47	46470	60540	13570	28.89	3.21	.93
LAKEVILLE	3.822	.978	51.47	53.99	2.52	18374	19275	901	4.90	5.18	.25
LITTLEFIELD	7.565	.500	83.84	79.68	-4.16	28926	27490	-1436	-4.96	2.08	-.10
MALAKOFF	6.657	.784	99.00	61.38	-37.62	38511	23877	-14634	-38.00	3.77	-1.43
MARBLE FALLS	4.141	.903	82.33	56.55	-5.78	30169	27370	-2799	-9.28	2.27	-.21
MARION COUNTY	4.327	1.011	45.56	52.96	7.41	61182	71129	9947	16.26		
MEMPHIS	3.396	.361	108.78	96.25	-12.53	8050	7123	-927	-11.52	1.11	-.13
MORAHANS-WICKT-PYOTE	5.924	1.392	61.26	43.99	-17.27	34124	24505	-9619	-28.19	1.10	-.31
MOODY	4.559	.774	58.64	61.84	3.20	13664	14409	745	5.45	4.48	.24
MOUNT VERNON	3.711	.740	47.97	63.47	15.50	24658	32625	7967	32.31	2.70	.87
MULESHOE	3.633	.710	84.18	65.01	10.83	42207	50647	8440	20.00	2.60	.52
NAVARRO	4.867	1.101	41.84	50.41	8.57	12342	14870	2528	20.48	4.10	.84
NAVASOTA	5.754	1.172	38.46	48.61	10.15	58458	73890	15432	26.40	3.63	.96
NIXON	3.559	.565	69.04	74.23	5.18	15604	16775	1171	7.51		
OLNEY	4.075	.526	96.70	77.37	-19.32	15568	12457	-3111	-19.98	.97	-.19
ORE CITY	5.579	1.565	59.45	41.10	-18.34	20093	13893	-6200	-30.86	4.89	-1.51
PITTSBURG	7.451	.989	52.58	53.64	1.06	52161	53214	1053	2.02	3.18	.06
PLEASANTON	4.492	.945	57.83	55.08	-2.75	49732	47367	-2365	-4.76	3.01	-.14
QUEEN CITY	6.367	.901	56.61	56.62	.01	23211	23215	4	.02	4.32	.00
REFUGIO	3.740	2.697	41.33	34.69	-6.64	21407	17968	-3439	-16.06	1.34	-.21
RICE CONS.	3.694	.859	50.46	58.21	7.75	36486	42088	5602	15.35	2.03	.31
RIO GRANDE CITY	6.910	1.019	84.00	52.72	-31.28	116000	72808	-43192	-37.23	3.09	-1.15
ROCKDALE	7.116	.866	51.90	57.94	6.04	26468	29549	3081	11.64	2.23	.26
ROYAL	5.416	1.512	52.68	41.93	-10.75	35138	27970	-7168	-20.40	2.27	-.46
SAN FELIPE-DEL RIO	6.882	2.472	27.67	30.14	2.47	96115	104701	8585	8.93	1.64	.15
SMITHVILLE	3.263	.595	68.71	72.03	3.32	24873	26076	1202	4.83	3.12	.15
SNOOK	3.303	2.273	44.67	33.10	-11.57	21219	15724	-5495	-25.90	4.32	-1.12
SNYDER	5.721	.806	83.95	60.40	-23.55	77151	55511	-21640	-28.05	1.78	-.50
SPRINGLAKE-EARTH	3.713	1.260	42.70	46.61	3.91	32666	35659	2992	9.16	4.80	.44
STAMFORD	7.160	.502	126.66	79.50	-47.16	15199	9540	-5659	-37.24	1.87	-.70
STEPHENVILLE	7.679	.671	61.93	67.18	5.25	30654	33255	2601	8.48	2.16	.18
TARKINGTON	3.970	1.560	44.69	41.18	-3.51	40442	37269	-3173	-7.85	4.79	-.38
TIMPSON	5.130	.868	66.33	57.86	-8.47	33630	29336	-4294	-12.77	6.44	-.82
TULIA	4.252	.494	85.74	80.24	-5.50	42182	39479	-2704	-6.41	2.44	-.16
VALLEY VIEW	3.274	.530	54.64	77.03	22.39	7814	11016	3202	40.97	3.34	1.37
VAN ALSTYNE	7.627	1.479	78.66	51.00	-27.66	16125	10455	-5670	-35.16	3.02	-1.06
WALLIS	8.000	1.142	43.93	49.35	5.42	5315	5971	656	12.34	1.53	.19
WARREN	3.426	.933	72.55	55.49	-17.06	55211	42226	-12985	-23.52	3.34	-.79
WELLS	3.505	.918	47.02	56.01	8.99	8464	10082	1618	19.12	3.35	.64
WINNSBORO	4.559	.760	70.06	62.50	-7.56	37063	33062	-4001	-10.80	4.04	-.44
WOLFE CITY	3.870	.783	63.29	61.43	-1.87	10780	10443	-317	-2.95	3.55	-.18
WOODVILLE	5.572	1.196	44.82	48.04	3.22	46971	50350	3378	7.19	3.48	.24
YORKTOWN	3.826	.529	88.38	77.46	-10.92	21211	18590	-2621	-12.36	3.88	-.37

AVE. ACTUAL C/P	=	61.29
AVE. ESTIMATED C/P	=	59.71
TOTAL ACTUAL COST	=	3414186
TOTAL ESTIMATED COST	=	3403804
DIFF. IN TOTAL COST	=	10382
TOTAL ABSOLUTE DIFF.	=	577669
AVE. ABSOLUTE DIFF.	=	9835
AVE. PCT. DIFF.	=	16.07

TABLE C4. COMPARISON OF ACTUAL AND ESTIMATED M & O EXPENDITURES FOR REGULAR PUPIL TRANSPORTATION PARDEN 4

DISTRICT NAME	PARDEN	LD	ACT. C/P	EST. C/P	C/P DIFF.	ACT. TC	EST. TC	TC DIFF.	PCT. DIFF.	PCT. TRANS	PCT. MUD.
ATHENS	10.206	1.761	29.24	33.43	4.20	38218	43696	5486	14.36	2.02	.29
ATLANTA	8.220	1.130	48.80	46.70	17.94	38630	54399	22769	62.16	1.94	1.23
BELVILLE	11.549	1.195	70.21	44.77	-25.44	45508	29056	-16512	-36.24	1.20	-.47
BLOOMINGTON	8.288	2.145	27.50	28.82	1.32	17874	18731	857	4.79	2.18	.10
BONHAM	8.702	1.124	42.29	46.88	4.59	32426	35726	3301	10.86	1.40	.10
BOWIE COUNTY	13.675	1.726	30.27	33.94	3.67	189763	212779	23017	12.13	N/A	
BURKBURNETT	19.522	1.042	47.69	49.84	1.95	39344	40951	1607	4.08	1.04	.07
CALHOUN COUNTY	9.076	1.152	55.96	46.02	-9.93	67987	55919	-12067	-17.75	1.49	-.20
CENTER	8.820	1.338	39.50	41.12	1.61	50998	53082	2084	4.09	3.65	.15
CLEBURNE	19.779	.990	45.11	51.59	6.48	25531	29199	3668	14.37	1.06	.15
CLEVELAND	15.194	1.042	32.17	31.06	-1.11	38450	35095	-1255	-3.45	1.11	-.04
COLUMBIA-BRAZORIA	10.924	1.534	32.69	37.09	4.41	63267	71777	8530	13.49	2.41	.32
COMMENCE	12.037	1.237	34.32	43.62	9.30	14517	18452	3935	27.11	1.03	.28
DAINGERFIELD	13.616	2.054	36.01	29.77	-6.24	42216	34983	-7333	-17.33	2.24	-.39
EDINBURG	8.702	1.234	44.19	43.70	-.49	186479	184622	-1857	-1.12	2.27	-.03
EL CAMPO	8.411	1.418	47.05	39.36	-7.69	108596	90837	-17759	-16.35	2.76	-.49
GEORGETOWN	11.117	1.023	38.30	50.35	12.04	21790	28638	6848	31.43	.56	.10
GLADEWATER	15.211	2.110	53.66	29.16	-24.48	82208	44697	-37509	-45.63	3.85	-1.76
HARRISON COUNTY	15.795	1.374	40.74	40.30	-.43	124284	122884	-1320	-1.06	N/A	
HENDERSON	8.430	.978	55.43	52.07	-3.36	106589	98247	-6342	-6.06	3.66	-.22
HILLSBORO	9.006	.734	54.29	64.83	5.34	18144	19778	1633	9.00	1.23	.11
IOWA PARK CONS.	11.517	1.318	36.44	41.59	5.15	26956	30849	3793	14.12	1.02	.23
KAUFMAN	8.099	1.684	37.49	34.58	-2.91	37492	34577	-2915	-7.77	3.41	-.27
KENEDY	8.007	1.427	34.08	39.17	5.09	17892	20504	2672	14.94	1.72	.26
KERRVILLE	17.313	1.988	26.11	30.51	2.40	18442	20017	1575	8.54	.84	.07
LAMESA	9.641	1.160	41.74	45.78	4.04	60987	66891	5905	9.68	2.18	.21
LEVELLAND	9.612	1.147	45.60	46.17	.58	57771	58504	732	1.27	1.72	.02
LIBERTY	15.782	2.324	40.79	27.13	-13.66	48937	32283	-16654	-33.49	2.55	-.86
LOCKHART	8.636	1.010	54.08	50.82	-3.18	51401	48277	-3024	-5.89	2.84	-.16
MANOR	8.172	1.732	45.79	33.85	-11.94	24715	17546	-6162	-26.07	4.11	-1.07
MIDLAND	19.504	1.534	34.47	37.09	2.63	127283	136989	9706	7.63	.93	.07
MOUNT PLEASANT	19.924	1.153	42.81	45.94	13.19	40973	57446	16473	40.20	1.18	.67
NACOGDOCHES COUNTY	11.238	.980	37.20	51.99	14.78	102926	143687	40860	39.74	N/A	
NATALIA	10.014	1.902	32.08	31.55	-.53	13120	12903	-217	-1.65	2.74	-.05
OVERTON	14.857	2.000	50.67	30.38	-20.30	7001	4556	-3045	-40.05	1.48	-.64
PALESTINE	14.186	1.633	40.49	35.19	-5.10	83939	73267	-10672	-12.61	2.60	-.33
PAMPA	10.229	.392	203.15	103.00	-99.49	58883	29025	-27858	-48.97	1.23	-.60
PLAINVIEW	19.377	.922	48.42	54.43	6.01	79048	89537	9849	12.42	1.65	.21
ROCKWALL	15.176	1.499	36.01	37.74	3.74	24724	27446	2717	10.99	1.00	.11
SEGUIN	12.958	.967	63.63	52.51	-11.12	71711	59179	-12532	-17.48	1.27	-.22
SMALLWATER	9.486	1.279	43.89	42.54	-1.35	13079	12676	-403	-3.08	2.48	-.08
SLATON	18.072	1.992	43.54	30.47	6.92	18038	23309	5311	29.41	1.20	.35
SPRINGTOWN	8.586	1.837	24.63	32.38	7.76	17733	23317	5584	31.49	2.77	.87
SULPHUR SPRINGS	9.233	1.243	36.75	43.46	6.71	52350	62131	9802	18.87	2.53	.46
WAXAHACHIE	17.687	1.827	25.76	32.52	6.76	33360	42111	8751	26.23	.82	.16

AVE. ACTUAL C/P	=	44.13
AVE. ESTIMATED C/P	=	42.13
TOTAL ACTUAL COST	=	2412072
TOTAL ESTIMATED COST	=	2435548
DIFF. IN TOTAL COST	=	-22549
TOTAL ABSOLUTE DIFF.	=	992439
AVE. ABSOLUTE DIFF.	=	8721

AVE. PCT. DIFF. = 18.11

TABLE C5. COMPARISON OF ACTUAL AND ESTIMATED M & O EXPENDITURES FOR REGULAR PUPIL TRANSPORTATION PARDEN 5

DISTRICT NAME	PARDEN	LD	ACT. C/P	EST. C/P	C/P DIFF.	ACT. TC	EST. TC	TC DIFF.	PCT. DIFF.	PCT. TRANS	PCT. BUD.
ALICE	21.398	1.099	47.64	61.37	13.73	39112	50384	11272	28.82	.80	.23
ANTHONY	50.000	1.552	86.67	45.76	-40.91	3900	2059	-1841	-47.20	1.25	-.59
ARANSAS PASS	34.407	2.845	15.31	27.33	12.02	16335	29160	12825	78.52	.94	.74
BAY CITY	23.816	1.337	57.32	51.95	-5.37	45969	41660	-4309	-9.37	1.04	-.10
BIG SPRING	25.627	1.658	40.40	43.26	2.86	68310	73149	4839	7.08	1.07	.08
BONGER	58.154	2.055	46.57	36.04	-10.53	17325	13407	-3919	-22.62	.57	-.13
BRAZOSPORT	48.196	1.419	39.97	49.38	9.41	151250	186858	35608	23.54	1.44	.34
BROWNWOOD	23.803	1.596	28.89	44.68	23.79	14268	30518	16251	113.90	.34	.38
CONROE	31.282	1.595	56.81	44.71	-12.11	461257	362975	-98282	-21.31	3.66	-.78
CYPRESS-FAIRBANKS	46.651	1.242	45.43	55.31	9.88	341876	416232	74356	21.75	2.99	.65
DEL VALLE	21.908	1.352	37.91	51.45	13.54	79649	108107	28458	35.73	3.11	1.11
DENISON	49.550	1.653	48.24	43.37	-4.87	39941	35910	-4031	-10.09	.92	-.09
DENTON	43.765	1.878	42.88	38.91	-3.97	105020	95287	-9734	-9.27	1.25	-.12
EANES	45.032	2.565	40.51	29.85	-10.67	27955	20594	-7361	-26.33	1.60	-.42
ECTOR COUNTY	23.342	1.664	66.17	43.13	-23.04	291541	190009	-101531	-34.83	1.46	-.51
FABENS	22.629	1.933	31.14	37.96	6.83	10836	13212	2376	21.92	1.19	.26
GAINESVILLE	34.500	1.079	60.43	62.34	1.90	24656	25433	777	3.15	.70	.02
GREGORY-PORTLAND	33.535	2.966	25.28	26.38	1.10	29023	30282	1259	4.34	.94	.04
KILLEEN	27.071	1.990	31.44	37.04	5.60	115231	135744	20513	17.80	1.47	.26
LAMAR CONS.	21.912	1.911	43.02	38.34	-4.68	231136	205981	-25155	-10.88	2.31	-.25
LUFKIN	43.576	2.462	25.75	30.91	5.15	68217	81868	13651	20.01	.95	.19
MINERAL WELLS	38.587	2.000	38.80	36.88	-1.92	46362	44256	-2306	-4.95	1.57	-.08
RAYMONDVILLE	31.417	1.500	64.93	47.10	-17.82	22410	15968	-6442	-27.45	1.05	-.29
ROBSTOWN	55.736	1.436	56.86	48.88	-7.97	19274	16571	-2702	-14.02	.56	-.04
SAN MARCOS	20.792	2.736	28.76	28.25	1.50	68897	72750	3853	5.59	1.61	.09
SILSBEE	21.641	2.490	38.92	30.61	-8.31	79288	62351	-16937	-21.36	2.95	-.63

AVE. ACTUAL C/P	=	43.69
AVE. ESTIMATED C/P	=	41.97
TOTAL ACTUAL COST	=	2418837
TOTAL ESTIMATED COST	=	2360725
DIFF. IN TOTAL COST	=	58112
TOTAL ABSOLUTE DIFF.	=	510187
AVE. ABSOLUTE DIFF.	=	19623
AVE. PCT. DIFF.	=	24.69

TABLE C6. COMPARISON OF ACTUAL AND ESTIMATED M & O EXPENDITURES FOR REGULAR PUPIL TRANSPORTATION PARDEN 6

DISTRICT NAME	PARDEN	LD	ACT. C/P	EST. C/P	C/P DIFF.	ACT. TC	EST. TC	TC DIFF.	PCT. DIFF.	PCT. TRANS	PCT. BUD.
ABILENE	169.846	2.630	26.04	34.75	8.70	52611	70185	17574	33.40	.38	.13
ALAMO HEIGHTS	479.000	5.375	20.65	20.47	-.18	4439	4400	-39	-.88	.09	-.00
ALIEF	146.162	3.012	40.07	31.43	-8.64	80136	62850	-17286	-21.57	.88	-.19
AMARILLO	355.857	2.589	29.74	35.15	5.41	30570	36136	5566	18.21	.13	.02
ARLINGTON	241.766	2.646	35.48	34.59	-.89	134804	131405	-3399	-2.52	.55	-.01
AUSTIN	178.540	1.830	55.41	51.89	-3.51	343019	321267	-21751	-6.34	.59	-.04
BEAUMONT	217.982	1.681	75.69	48.40	-27.29	80531	51497	-29034	-36.05	.69	-.25
BROWNSVILLE	202.644	2.465	56.95	36.45	-20.50	217044	138921	-78123	-35.99	1.44	-.52
CARROLLTON-FARMER BR	181.075	2.267	19.09	38.78	19.69	19607	39832	20224	103.15	.20	.21
CORPUS CHRISTI	255.887	1.007	69.61	70.73	1.13	41902	42582	679	1.62	.13	.00
DALLAS COUNTY	283.169	2.279	25.89	38.63	12.75	552330	824315	271986	49.24		
DEER PARK	158.526	2.275	77.50	38.68	-38.81	149879	74814	-75065	-50.08	1.24	-.62
EL PASO	262.221	3.460	45.27	28.36	-16.91	285440	178801	-106639	-37.36	.56	-.21
GALVESTON	118.989	1.912	60.57	44.00	-16.57	106170	77128	-29043	-27.35	.82	-.22
HARLINGEN	125.778	1.977	34.38	42.92	8.54	89380	111596	22216	24.86	1.08	.27
HOUSTON	616.855	2.343	32.58	37.85	5.27	482228	560164	77935	16.16	.28	.05
HURST-EULESS-BEDFORD	360.977	3.671	18.57	27.14	8.57	44594	65169	20575	46.14	.33	.15
KINGSVILLE	64.085	5.000	24.09	21.59	-2.50	14456	12955	-1502	-10.39	.19	-.02
LAREDO	1303.071	1.359	90.94	56.65	-34.29	37833	23568	-14265	-37.71	.27	-.10
LONGVIEW	71.175	1.838	37.02	45.30	8.28	120069	146916	26847	22.36	1.33	.30
LUBBOCK	349.057	1.218	78.66	61.44	-17.22	36498	28508	-7990	-21.89	.13	-.03
MCALLEN	167.153	4.608	22.39	22.94	.55	111950	114686	2736	2.44	1.19	.03
MESQUITE	295.746	2.721	32.80	33.88	1.08	56835	58715	1880	3.31	.38	.01
MISSION	187.120	4.028	44.68	25.34	-19.34	38160	21640	-16520	-43.29	1.13	-.49
NORTH EAST	204.265	3.007	33.03	31.46	-1.57	243428	231857	-11570	-4.75	.95	-.05
NORTHSIDE (BEXAR)	67.137	1.863	34.50	44.85	10.35	241079	313422	72343	30.01	1.07	.32
PARIS	183.522	4.243	31.11	24.38	-6.73	24424	19140	-5283	-21.63	.51	-.11
PASADENA	418.256	2.808	38.48	33.10	-5.38	282921	243386	-39535	-13.97	1.03	-.14
PEARLAND	93.233	3.476	23.81	28.26	4.45	57768	68563	10795	18.69	1.70	.32
PORT ARTHUR	260.725	1.505	54.18	52.53	-1.65	89675	86936	-2738	-3.05	.72	-.02
RICHARDSON	771.231	3.788	21.21	26.52	5.31	106040	132595	26555	25.04	.34	.09
SAN ANGELO	67.069	2.483	36.63	36.26	-.38	57039	56452	-587	-1.03	.52	-.01
SHERMAN	75.824	2.725	32.60	33.84	1.24	58454	60682	2229	3.81	1.14	.04
SPRING BRANCH	874.857	2.426	36.42	36.89	.46	690142	698947	8805	1.28	1.65	.02
TEMPLE	144.080	.960	81.90	73.28	-8.62	19657	17588	-2069	-10.53	.36	-.04
TEXAS CITY	303.000	10.385	13.44	12.57	-.88	42446	39673	-2773	-6.53	.61	-.04
TYLER	76.171	1.730	39.09	47.38	8.29	139199	168721	29521	21.21	1.16	.25
WESLACO	112.148	1.959	18.76	43.21	24.45	74594	171816	97223	130.34	1.51	1.97
WEST ORANGE-COVE	212.586	4.732	23.81	22.49	-1.32	50469	47680	-2789	-5.53	.65	-.04
WHITE SETTLEMENT	111.120	2.500	30.96	36.07	5.11	9288	10822	1534	16.52	.47	.08
WICHITA FALLS	169.789	2.136	34.92	40.53	5.61	111290	129176	17886	16.07	.79	.13
YSLETA	553.823	6.162	15.35	18.50	3.15	29693	35790	6097	20.54	.12	.02

AVE. ACTUAL C/P	=	39.39
AVE. ESTIMATED C/P	=	37.37
TOTAL ACTUAL COST	=	5458090
TOTAL ESTIMATED COST	=	5731294
DIFF. IN TOTAL COST	=	-273205
TOTAL ABSOLUTE DIFF.	=	1209210
AVE. ABSOLUTE DIFF.	=	28791
AVE. PCT. DIFF.	=	23.88

TABLE C7. COMPARISON OF ACTUAL AND ESTIMATED EXPENDITURES FOR SPECIAL EDUCATION TRANSPORTATION

DISTRICT NAME	PARDEN	LD	ACT. C/P	EST. C/P	C/P DIFF	ACT. TC	EST. TC	TC DIFF	PCT. DIFF
ABILENE	199.846	.534	165.87	180.25	14.37	41471	45064	3592	8.66
ALICE	21.398	.467	150.59	201.31	50.72	6108	2818	710	33.08
ALIEF	146.162	.640	235.02	155.27	-79.74	7521	4969	-2552	-33.93
ARLINGTON	241.766	.216	263.31	379.97	-103.34	57591	40277	-17314	-30.06
ATHENS	16.206	.222	323.63	371.49	47.86	6534	5201	647	14.72
AUSTIN	178.340	.312	323.23	284.66	-42.60	101954	100609	-21343	-13.19
BAY CITY	23.816	.925	104.70	114.83	9.96	3874	4241	368	9.49
BEAUMONT	217.982	.461	327.90	203.46	-124.44	19346	12004	-7342	-37.95
BIG SPRING	25.627	.493	174.99	196.52	17.52	12075	13284	1209	10.01
BORDEN	58.154	.309	414.10	286.90	-127.20	6554	5441	-2713	-31.35
BRAZOSPORT	48.196	.521	149.99	183.95	34.97	37594	40540	8846	23.47
BROWNFIELD	7.180	.522	113.55	184.66	70.11	1363	2204	841	61.74
BROWNSVILLE	202.644	.524	298.73	183.08	-115.64	34960	40139	-12721	-36.71
BROWNWOOD	23.803	.397	134.87	230.13	95.25	3102	5293	2191	70.63
BRYAN	21.437	.533	61.75	180.53	118.78	3458	10110	6652	192.35
CARROLLTON-FARMER BR	161.075	.603	117.29	163.08	45.82	4104	5708	1604	39.08
COMMERCE	12.037	1.200	53.97	96.51	38.54	568	1110	442	71.41
CORPUS CHRISTI	295.887	.227	360.90	364.74	3.84	124870	126199	1328	1.06
CYPRESS-FAIRBANKS	40.651	.244	283.05	343.07	59.61	14553	17183	2531	17.27
DALLAS	283.169	.218	357.99	377.10	19.11	640906	675805	34200	5.34
DEER PARK	158.526	.583	311.67	147.17	-164.50	13402	6324	-7073	-52.78
DENTON	43.765	1.215	87.62	94.56	6.94	14370	15017	646	4.50
EAGLE PASS	4.285	.944	75.79	112.73	36.94	2575	3833	1257	48.82
ECTOR COUNTY	23.342	.344	378.93	258.96	-119.97	83365	56972	-26393	-31.66
EDINBURG	8.702	.183	384.90	433.59	50.65	3774	6534	760	13.17
EL PASO	262.221	1.226	159.23	90.89	-68.34	28750	15269	-11481	-42.92
GALVESTON	119.939	.600	229.73	163.73	-66.01	45843	29345	-1,297	-28.73
HARLINGEN	125.778	.388	421.98	236.51	14.53	21088	22279	1191	5.65
HEREFORD	7.189	.688	78.55	140.29	61.73	4526	8628	2301	91.08
HOUSTON	616.855	.378	268.96	239.61	-29.31	909914	875791	-34023	-3.74
HURST-EULESS-BEDFORD	360.377	.392	435.69	246.54	-43.10	80089	59298	-741	-1.32
KILLEEN	27.071	.327	247.21	270.01	22.80	16113	13230	1117	9.22
KINGSVILLE	94.085	.600	273.65	163.75	-109.89	3284	1965	-1319	-40.16
KNOX CITY	4.538	.375	203.49	241.19	37.70	1831	2171	339	18.53
LAMAR CONS.	21.912	.337	312.73	263.39	-49.34	9595	8105	-1530	-15.78
LAREDO	1303.071	.697	402.12	144.73	-57.39	53359	38210	-15150	-28.39
LIBERTY	15.782	.893	130.81	116.01	-14.80	8764	7906	-858	-9.79
LONGVIEW	71.175	.708	131.69	146.88	11.24	29300	28004	2204	8.34
LUBBOCK	349.057	.313	361.89	279.92	-91.98	98989	85626	-13362	-22.55
LUFKIN	43.876	.525	178.43	186.80	12.37	15950	17000	1150	7.26
MARSHALL	15.795	.833	91.00	124.97	33.97	13650	18745	5095	37.33
MCALLEN	107.183	1.000	125.30	107.50	-17.80	24058	20640	-3418	-14.21
MESQUITE	295.746	1.259	92.25	88.92	-3.34	42420	41807	-612	-3.62
MIDLAND	19.504	.442	197.27	240.64	43.37	27395	37694	9500	33.93
NACOGDOCHES COUNTY	11.238	.857	62.40	126.07	59.69	3744	7324	3581	95.64
NORTH EAST	204.265	.278	418.64	308.65	-109.79	146036	107717	-38318	-26.24
NORTHSIDE	67.137	.452	178.04	206.79	28.77	89010	103397	14387	16.16
PALESTINE	14.186	.441	192.90	214.04	16.14	8980	9697	816	9.40
PAMPA	10.229	.154	583.87	502.12	-83.75	11717	10042	-1675	-14.29
PASADENA	418.256	.482	458.35	176.13	-80.23	197918	128466	-39452	-23.49
PEARLAND	93.233	.436	255.19	213.03	-42.13	10652	8734	-1727	-16.51
PLAINVIEW	18.377	.583	101.41	197.66	96.25	2130	3521	1392	65.34
PORT ARTHUR	260.725	.398	455.35	229.65	-225.90	37321	33969	-3433	-10.13
RICHARDSON	771.231	.381	471.53	238.06	-33.49	38832	34042	-4789	-12.33
SAN ANGELO	67.069	.348	328.27	256.51	-71.76	21338	16673	-4665	-21.86
SAN ANTONIO	812.734	.309	152.27	286.90	130.61	98329	164082	75752	85.76
SAN FELIPE-DEL RIO	6.882	.603	154.23	163.08	8.85	5398	5708	310	5.74
SHERMAN	75.824	.385	289.18	238.02	-51.16	8675	7081	-1594	-18.38
SLATON	18.072	.067	1053.93	996.79	-57.13	11594	10985	-629	-5.43
SMITHVILLE	3.263	.160	352.84	488.36	135.92	1411	1996	536	37.98
SPRING BRANCH	874.857	.152	721.83	507.26	-214.32	292558	177646	-75012	-29.54
SULPHUR SPRINGS	9.233	.100	653.97	710.65	56.69	3270	3583	313	9.59
TEXAS CITY	303.000	.967	274.53	110.51	-164.02	24159	9725	-14434	-59.75
TYLER	76.171	.987	88.39	108.67	20.31	13960	17109	3209	22.99
WESLACO	112.148	.065	842.13	1042.00	179.82	10948	13286	2338	21.35
WEST ORANGE-COVE	212.586	.875	163.00	120.00	-49.00	17765	12600	-5165	-28.99
WICHITA FALLS	189.789	.867	109.56	140.91	11.40	11390	12575	1185	10.41
YSLETA	553.823	.832	195.21	130.89	-38.32	57000	45812	-11188	-19.63

AVE. ACTUAL C/P	=	258.47
AVE. ESTIMATED C/P	=	247.81
TOTAL ACTUAL COST	=	3680309
TOTAL ESTIMATED COST	=	3481457
DIFF. IN TOTAL COST	=	198372
TOTAL ABSOLUTE DIFF.	=	587544
AVE. ABSOLUTE DIFF.	=	4640
AVE. PCT. DIFF.	=	24.19

TABLE C8. DISTRICT BY DISTRICT ANALYSIS OF BUS REPLACEMENT MODEL

DISTRICT NAME	ACT. LF	EST. LF	ACT. BUSES	EST. BUSES	BUSES ALLOWED	BUS COST	TOTAL COST	ANNUAL COST
ABERNATHY	55.25	50.49	8	9	12	6453	75500	7550
ABILENE	126.25	111.17	16	18	23	8372	188370	18837
ALAMO HEIGHTS	215.00	177.79	1	1	1	8372	10884	1088
ALBANY	18.57	26.06	7	5	6	5745	37342	3734
ALBA-GOLDEN	63.40	66.94	5	5	6	8372	54418	5442
AMARILLO	114.22	110.03	9	9	12	8372	97952	9795
ANAHUAC	54.69	58.47	13	12	15	7632	114480	11448
ALICE	68.42	62.67	12	13	16	7914	128602	12860
ALIEF	117.65	121.53	17	16	20	8372	167440	16744
ALPINE	25.50	16.49	2	3	4	4575	17842	1784
ANDREWS	33.62	33.83	13	13	16	5745	93356	9336
ARANSAS PASS	106.70	117.06	10	9	12	8372	97952	9795
ANTHONY	45.00	78.62	1	1	1	8372	10884	1088
ARLINGTON	105.53	111.61	36	34	37	8372	313113	31311
ASPERMONT	25.20	22.30	5	6	8	4975	38805	3880
ATHENS	100.54	85.42	13	15	19	8372	156975	15697
ATLANTA	84.80	63.82	15	20	24	7914	189936	18994
AVERY	40.50	49.35	6	5	6	6453	41944	4194
AVINGER	36.00	44.07	3	2	3	6199	16117	1612
AUSTIN	89.72	77.88	69	79	87	8372	727527	72753
BALLINGER	31.33	31.46	9	9	12	5745	67216	6722
BALMORHEA	65.67	61.61	3	3	4	7914	30865	3086
BANDERA	52.62	42.02	8	10	13	6199	77487	7749
BARTLETT	39.25	68.41	4	2	3	8372	21767	2177
BASTROP	68.24	58.55	17	20	24	7632	183168	18317
BEAUMONT	76.00	82.85	14	13	16	8372	136045	13604
BAY CITY	80.20	71.28	10	11	14	8372	115115	11511
BECKVILLE	41.43	51.87	7	6	8	6453	50333	5033
BEEVILLE	92.71	66.21	7	10	13	7914	98925	9892
BIG SANDY	78.00	76.88	5	5	6	8372	54418	5442
BIG SPRING	112.73	82.10	15	21	25	8372	210974	21097
BLOOMINGTON	108.33	97.24	6	7	9	8372	76185	7619
BLUE RIDGE	52.25	62.29	4	3	4	7914	30865	3086
BOERNE COUNTY LINE	64.67	57.50	9	10	13	7632	95400	9540
BRACKETT	19.67	19.65	6	6	8	4975	38805	3880
BRADY	31.37	34.19	8	7	9	5745	52279	5228
BRAZOSPORT	49.14	74.12	77	51	56	8372	469669	46967
BOLING	97.62	85.10	8	9	12	8372	97952	9795
BONHAM	76.20	63.60	10	12	15	7914	118710	11871
BORDEN	23.17	20.46	6	7	9	4975	45272	4527
BORGER	53.14	94.54	7	4	5	8372	43534	4353
BOVINA	31.33	31.41	6	6	8	5745	44811	4481
BOWIE COUNTY	83.59	84.30	75	74	81	8372	681481	68148
BOWIE	66.70	60.82	10	11	14	7914	108817	10882
BRECKENRIDGE	26.00	23.13	10	11	14	4975	64406	6441
BREMOND	30.43	39.20	7	5	6	6199	40293	4029
BRENHAM	57.72	52.69	36	39	43	6453	276834	27683
BROOKELAND	58.33	49.95	3	4	5	6453	33556	3356
BROOKS COUNTY	61.00	42.89	8	11	14	6199	85236	8524

TABLE C8. DISTRICT BY DISTRICT ANALYSIS OF BUS REPLACEMENT MODEL (con't)

DISTRICT NAME	ACT. LF	EST. LF	ACT. BUSES	EST. BUSES	BUSES ALLOWED	BUS COST	TOTAL COST	ANNUAL COST
BROWNFIELD	47.13	49.73	15	14	18	6453	112927	11293
BROWNSVILLE	224.18	106.54	17	36	40	8372	331531	33153
BROWNWOOD	97.57	80.07	7	9	12	8372	97952	9795
BURKBURNETT	51.56	60.51	16	14	18	7914	138495	13849
BURNET	62.08	42.62	13	19	24	6199	147226	14723
CALHOUN COUNTY	55.23	64.64	22	19	24	7914	187957	18795
CANADIAN	17.00	20.19	7	6	8	4975	38805	3880
CANYON	84.56	52.61	18	29	35	6453	224564	22456
CARRIZO SPRINGS	52.00	39.58	8	11	14	6199	85236	8524
CARROLLTON-FARMER BR	93.36	100.84	11	10	13	8372	104650	10465
CARTHAGE	54.55	46.38	33	39	43	6199	265937	26594
CENTERVILLE (LEON)	34.91	37.21	11	10	13	6199	77487	7749
CENTER	80.69	71.32	16	18	23	8372	188370	18837
CHEROKEE	38.67	31.89	3	4	5	5745	29874	2987
CHICO	52.40	51.24	5	5	6	6453	41944	4194
CHILDRESS	24.29	26.94	7	6	8	5745	44811	4481
CHILLICOTHE	26.50	28.60	6	6	8	5745	44811	4481
CLARENDON	30.71	26.82	7	8	10	5745	59748	5975
CLARKSVILLE	53.86	46.25	14	16	20	6199	123980	12398
CISCO	41.50	41.79	6	6	8	6199	48352	4835
CLEBURNE	62.89	58.51	9	10	13	7632	95400	9540
CLEVELAND	102.73	91.09	11	12	15	8372	125580	12558
CLIFTON	52.67	42.80	6	7	9	6199	56411	5641
COLEMAN	32.50	30.22	4	4	5	5745	29874	2987
COLUMBIA-BRAZORIA	87.95	78.02	22	25	30	8372	251160	25116
COMAL	78.35	55.40	26	37	41	7632	310622	31062
COMANCHE	36.33	35.67	12	12	15	5745	86175	8617
COMMERCE	52.87	67.73	8	6	8	8372	65302	6530
CONROE	82.01	80.04	99	101	111	8372	930129	93013
COOPER	43.13	47.73	8	7	9	6199	56411	5641
CORPUS CHRISTI	60.20	59.17	10	10	13	7632	95400	9540
CORRIGAN-CAMDEN	88.50	71.07	6	7	9	8372	74185	7419
COVINGTON	41.00	73.95	2	1	1	8372	10884	1088
CROCKETT COUNTY	22.50	29.78	6	5	6	5745	37342	3734
CROSBYTON	29.00	29.78	7	7	9	5745	52279	5228
CUERO	47.82	46.77	11	11	14	6199	85236	8524
CULBERSON COUNTY	28.75	31.94	4	4	5	5745	29874	2987
CYPRESS-FAIRBANKS	109.07	67.91	69	111	122	8372	*2222.	*222.
DAINGERFIELD	90.38	94.51	13	12	15	8372	125580	12553
DALHART	23.37	20.33	8	9	12	4975	59207	5921
DALLAS COUNTY	89.65	101.19	238	211	232	8372	*4314.	*431.
DANBURY	55.00	40.05	2	3	4	6199	24176	2419
DEER PARK	44.98	101.07	43	19	24	8372	198835	19883
DELMAR	46.86	57.97	7	6	8	7632	59530	5953
DEL VALLE	95.50	71.80	22	29	35	8372	291346	29135
DENISON	59.14	81.94	14	10	13	8372	104650	10465
DENTON	74.21	89.11	33	27	32	8372	271253	27125
DEWEYVILLE	78.80	83.88	5	5	6	8372	54418	5442
DIMMITT	39.33	40.76	15	14	18	6199	104482	10448
DRIPPING SPRINGS	56.78	44.79	9	11	14	6199	85236	8524

TABLE C8. DISTRICT BY DISTRICT ANALYSIS OF BUS REPLACEMENT MODEL (con't)

DISTRICT NAME	ACT. LF	EST. LF	ACT. BUSES	EST. BUSES	BUSES ALLOWED	BUS COST	TOTAL COST	ANNUAL COST
INDUSTRIAL	43.18	49.99	11	10	13	6453	80662	8066
IRAAN-SHEFFIELD	28.80	27.17	5	5	6	5745	37342	3734
IOWA PARK CONS.	92.12	70.61	8	10	13	8372	104650	10465
ITALY	46.67	51.87	3	3	4	6453	25167	2517
IMEDELL	27.00	41.51	2	1	1	6199	8059	806
ITASCA	45.00	57.22	7	6	8	7632	59530	5953
JACKSBORO	28.25	27.75	8	8	10	5745	59748	5975
JASPER	92.78	75.15	23	28	34	8372	281299	28130
JIM HOGG COUNTY	19.33	16.72	6	7	9	4575	41632	4163
JOHNSON CITY	31.60	27.23	5	6	8	5745	44811	4481
JONESBORO	22.50	23.88	4	4	5	4975	25870	2587
JUNCTION	31.88	27.81	8	9	12	5745	67216	6722
KAUFMAN	100.00	82.95	10	12	15	8372	125580	12558
KEMP	62.50	56.28	8	9	12	7632	89294	8929
KENEDY	75.00	74.40	7	7	9	8372	76185	7619
KERRVILLE	93.71	92.50	7	7	9	8372	76185	7619
KILLEEN	114.53	92.56	32	40	44	8372	368368	36837
KINGSVILLE	150.00	169.54	4	4	5	8372	43534	4353
KNOX CITY	32.00	36.81	2	2	3	6199	16117	1612
KOUNTZE	87.60	80.53	10	11	14	8372	115115	11511
LAGRANGE	56.14	58.20	14	14	18	7632	133560	13356
LAMAR CONS.	85.29	90.13	63	60	66	8372	552552	55255
LAMESA	104.36	64.93	14	23	28	7914	218426	21843
LAMPASAS	52.11	47.42	18	20	24	6199	148776	14878
LANEVILLE	39.67	58.05	9	6	8	7632	59530	5953
LAREDO	52.00	72.05	8	6	8	8372	65302	6530
LEAKEY	26.33	34.40	3	2	3	5745	14937	1494
LEVELLAND	63.35	64.45	20	20	24	7914	189936	18994
LIBERTY HILL	57.67	42.25	3	4	5	6199	32235	3223
LIBERTY	119.00	102.49	10	12	15	8372	125580	12558
LLANO	52.09	37.75	11	15	19	6199	116231	11623
LITTLEFIELD	28.75	37.36	12	9	12	6199	72528	7253
LUCKHART	55.88	59.29	17	16	20	7632	152640	15264
LONGVIEW	62.37	87.85	52	37	41	8372	347740	34774
LORAINE	42.50	47.47	4	4	5	6199	32235	3223
LUBBOCK	51.56	67.05	9	7	9	8372	76185	7619
LUFKIN	105.96	106.45	25	25	30	8372	251160	25116
MCADOO	26.33	34.91	3	2	3	5745	14937	1494
MCALLEN	227.27	160.69	22	31	34	8372	285485	28549
MALAKOFF	55.57	50.20	7	8	10	6453	67111	6711
MANOR	74.00	84.49	7	6	8	8372	65302	6530
MARBLE FALLS	60.50	55.08	8	9	12	7632	89294	8929
MARFA	39.00	35.47	4	4	5	5745	29874	2987
MARION COUNTY	58.39	59.32	23	23	28	7632	210643	21064
MASON	40.00	33.37	10	12	15	5745	86175	8617
MEGARGEL	24.50	33.26	2	1	1	5745	7468	747
MEMPHIS	24.67	30.16	3	2	3	5745	14937	1494
MENARD	19.17	20.60	6	6	8	4975	38805	3881
MESQUITE	123.79	113.66	14	15	19	8372	156975	15697
MIAMI	15.50	17.23	4	4	5	4575	23790	2379

TABLE C8. DISTRICT BY DISTRICT ANALYSIS OF BUS REPLACEMENT MODEL (con't)

DISTRICT NAME	ACT. LF	EST. LF	ACT. BUSES	EST. BUSES	BUSES ALLOWED	BUS COST	TOTAL COST	ANNUAL COST
DUMAS	40.11	33.73	9	11	14	5745	74994	7499
EAGLE PASS	95.31	73.68	13	17	21	8372	177905	17790
EANES	98.57	109.36	7	6	8	8372	65302	6530
EDINBURG	80.15	67.62	47	56	62	8372	515715	51572
ECTOR COUNTY	78.68	82.30	56	54	59	8372	497297	49730
EDNA	51.33	45.98	9	10	13	6199	77487	7749
EL CAMPO	76.93	74.09	30	31	34	8372	285485	28549
EL PASO	94.10	133.12	67	47	52	8372	432832	43283
FABENS	34.80	90.81	10	4	5	8372	43534	4353
FAIRFIELD	52.62	44.47	13	15	19	6199	116231	11623
FARMERSVILLE	52.80	61.20	5	4	5	7914	41153	4115
FARWELL	43.71	47.03	7	7	9	6199	56411	5641
FLOYDADA	53.89	39.72	9	12	15	6199	92985	9298
FOLLETT	17.00	20.93	2	2	3	4975	12935	1293
FORT STOCKTON	60.50	43.57	10	14	18	6199	108482	10848
FREDERICKSBURG	53.17	42.62	12	15	19	6199	116231	11623
GAINESVILLE	58.29	61.92	7	7	9	7914	72017	7202
GALVESTON	97.39	90.16	18	19	24	8372	198835	19883
GEORGETOWN	71.12	59.79	8	10	13	7632	95400	9540
GIDDINGS	53.13	46.60	8	9	12	6199	72528	7253
GLADEWATER	90.12	96.19	17	16	20	8372	167440	16744
GLEN ROSE	42.57	44.16	7	7	9	6199	56411	5641
GRAHAM	51.42	50.49	12	12	15	6453	96795	9679
GRANBURY	75.83	61.54	12	15	19	7914	148387	14839
GRANDFALLS-ROYALTY	35.00	42.57	3	2	3	6199	16117	1612
GRANDVIEW	57.50	58.90	4	4	5	7632	39686	3969
GRAND SALINE	70.00	61.61	6	7	9	7914	72017	7202
GRANGER	23.75	32.10	4	3	4	5745	22405	2241
GOLDTHWAITE	32.29	33.42	7	7	9	5745	52279	5228
GOLIAD	51.87	42.57	15	18	23	6199	139477	13948
GONZALES	63.87	53.14	15	18	23	6453	145192	14519
GORDON	27.67	30.71	3	3	4	5745	22405	2241
GORMAN	23.00	22.37	5	5	6	4975	32337	3234
GREGORY-PORTLAND	164.00	120.31	7	10	13	8372	104650	10465
GRUESBECK	38.64	35.97	11	12	15	5745	86175	8617
GROVETON	50.50	44.29	8	9	12	6199	72528	7253
GUSTINE	27.40	37.99	5	4	5	6199	32235	3223
HAMLIN	31.80	35.57	5	4	5	5745	29874	2987
HARLINGEN	162.50	92.16	16	28	34	8372	281299	28130
HARRISON COUNTY	70.91	72.57	43	42	46	8372	386786	38679
HEMPHILL	59.00	52.16	16	18	23	6453	145192	14519
HENDERSON	65.07	58.05	29	33	36	7632	277042	27704
HENRIETTA	35.71	30.00	7	8	10	5745	59748	5975
HEREFORD	58.65	43.44	26	35	38	6199	238661	23866
HILLSBORO	43.71	48.07	7	6	8	6199	44352	4435
HOLLAND	28.67	35.47	3	2	3	5745	14937	1494
HONEY GROVE	38.83	39.25	6	6	8	6199	44352	4435
HOUSTON	139.62	103.04	106	144	158	8372	*2612.	*261.
HUNTSVILLE	99.52	75.93	29	38	42	8372	349950	34995
HURST-EULESS-BEDFORD	150.06	138.40	16	17	21	8372	177905	17790

TABLE C8. DISTRICT BY DISTRICT ANALYSIS OF BUS REPLACEMENT MODEL (con't)

DISTRICT NAME	ACT. LF	EST. LF	ACT. BUSES	EST. BUSES	BUSES ALLOWED	BUS COST	TOTAL COST	ANNUAL COST
MIDLAND	127.34	78.02	29	47	52	8372	432832	43283
MIDWAY	26.17	27.52	6	6	8	5745	44811	4481
MILFORD	22.00	31.89	2	1	1	5745	7468	747
MINERAL WELLS	100.00	92.87	12	13	16	8372	136045	13604
MISSION	142.33	147.10	6	6	8	8372	65302	6530
MONAHANS-WICKT-PYOTE	69.62	73.19	8	8	10	8372	87069	8707
MOODY	46.60	49.78	5	5	6	6453	41944	4194
MOTLEY COUNTY	19.17	20.86	6	6	8	4975	38805	3880
MOUNT PLEASANT	83.27	64.67	15	19	24	7914	187957	18796
MOUNT VERNON	42.83	48.33	12	11	14	6199	85236	8524
MULESHOE	55.64	47.03	14	17	21	6199	131729	13173
MULLIN	26.67	29.94	3	3	4	5745	22405	2241
NACOGDOCHES COUNTY	76.78	58.12	36	48	53	7632	402970	40297
NATALIA	81.80	89.85	5	5	6	8372	54418	5442
NAVARRO	59.00	62.74	5	5	6	7914	51441	5144
NAVASOTA	69.09	65.37	22	23	28	7914	218426	21843
NECHES	50.00	33.88	5	7	9	5745	52279	5228
NEW SUMMERFIELD	39.00	61.24	4	3	4	7914	30865	3086
NIXON	37.67	40.48	6	6	8	6199	48352	4835
NORDHEIM	29.33	36.81	3	2	3	6199	16117	1612
NORTHSIDE(WILBARGER)	31.50	46.95	4	3	4	6199	24176	2418
NORTHSIDE (BEXAR)	142.61	88.64	49	79	87	8372	727527	72753
NORTH EAST	150.39	121.40	49	61	67	8372	561761	56176
OLNEY	32.20	38.62	5	4	5	6199	32235	3223
ONE CITY	67.60	79.05	5	4	5	8372	43534	4353
OVERTON	50.00	92.87	3	2	3	8372	21767	2177
PADUCAH	21.75	22.11	8	8	10	4975	51740	5174
PALESTINE	98.62	81.29	21	25	30	8372	251160	25116
PAMPA	25.45	31.84	11	9	12	5745	67216	6722
PARIS	157.00	152.21	5	5	6	8372	54418	5442
PASADENA	216.26	116.06	34	63	69	8372	580180	58018
PEARLAND	134.78	133.52	18	18	23	8372	188370	18837
PEARSALL	49.62	38.62	8	10	13	6199	77487	7749
PAWNEE	25.00	34.14	5	4	5	5745	29874	2987
PECOS-BARSTOW	45.23	34.71	13	17	21	5745	122081	12208
PERRYTON	26.17	23.13	12	14	18	4975	87062	8706
PLAINS	27.87	27.75	8	8	10	5745	54748	5475
PLAINVIEW	56.72	55.84	29	29	35	7632	265594	26559
PITTSBURG	52.21	58.47	19	17	21	7632	162180	16218
PLEASANTON	71.67	56.75	12	15	19	7632	143100	14310
PRAIRIE LEA	62.00	70.65	2	2	3	8372	21767	2177
PONDER	57.00	55.72	2	2	3	7632	19843	1984
PORT ARTHUR	103.44	77.04	16	21	25	8372	210974	21097
POST	30.25	29.50	8	8	10	5745	59748	5975
PUTNAM	48.00	38.67	1	1	1	6199	8059	806
QUEEN CITY	58.57	55.00	7	7	9	7632	69451	6945
RANKIN	55.33	24.09	3	6	8	5745	44811	4481
RAYMONDVILLE	67.80	76.88	5	4	5	8372	43534	4353
REFUGIO	86.33	95.80	6	5	6	8372	54418	5442
RICE CONS.	65.73	53.30	11	14	18	6453	112927	11293

TABLE C8. DISTRICT BY DISTRICT ANALYSIS OF BUS REPLACEMENT MODEL (con't)

DISTRICT NAME	ACT. LF	EST. LF	ACT. BUSES	EST. BUSES	BUSES ALLOWED	BUS COST	TOTAL COST	ANNUAL COST
RICHARDSON	151.52	141.28	33	35	38	8372	322322	32232
RICHLAND SPRINGS	26.25	23.32	4	5	6	4975	32337	3234
RIO GRANDE CITY	115.08	59.63	12	23	28	7632	210643	21064
ROBSTOWN	67.80	74.71	5	5	6	8372	54418	5442
ROBY	27.50	33.83	6	5	6	5745	37342	3734
ROCKDALE	56.67	53.59	9	10	13	6453	80662	8064
ROCKSPRINGS	15.37	19.30	8	6	8	4975	38805	3880
ROCKWALL	80.78	76.84	9	9	12	8372	97952	9795
ROXTON	15.75	29.05	4	2	3	5745	14937	1494
ROYAL	95.29	77.28	7	9	12	8372	97952	9795
SABINAL	25.25	25.58	4	4	5	5745	29874	2987
SANTO	30.29	37.94	7	6	8	6199	48352	4835
SAN ANGELO	119.77	107.05	13	15	19	8372	156975	15697
SAN FELIPE-DEL RIO	157.91	112.33	22	31	34	8372	285485	28549
SAN MARCOS	117.05	114.09	22	23	28	8372	231067	23107
SAN SABA	34.00	29.00	7	8	10	5745	59748	5975
SCHLEICHER CONS.	20.29	22.04	7	6	8	4975	38805	3880
SEGUIN	70.44	57.62	16	20	24	7632	183168	18317
SHALLOWATER	59.60	69.23	5	4	5	8372	43534	4353
SHAMROCK	28.67	26.88	3	3	4	5745	22405	2241
SEMINOLE	41.67	32.05	15	20	24	5745	137880	13788
SEYMOUR	34.18	28.32	11	13	16	5745	93356	9336
SHERMAN	149.42	113.79	12	16	20	8372	167440	16744
SIERRA BLANCA	8.50	12.02	2	1	1	4575	5947	595
SLATON	109.57	92.62	7	8	10	8372	87069	8707
SILSBEE	97.00	107.25	21	19	24	8372	198835	19883
SILVERTON	30.00	24.98	5	6	8	5745	44811	4481
SKIDMORE-TYNAN	35.83	47.86	6	4	5	6199	32235	3223
SLIDELL	23.75	34.96	4	3	4	5745	22405	2241
SLOCUM	34.00	44.43	5	4	5	6199	32235	3223
SMITHVILLE	45.25	41.88	8	9	12	6199	72528	7253
SNOOK	52.78	101.01	9	5	6	8372	54418	5442
SPEARMAN	24.62	24.62	8	8	10	5745	59748	5975
SNYDER	45.95	51.12	20	18	23	6453	145192	14519
SONORA	28.20	19.37	5	7	9	4975	45272	4527
SPRINGLAKE-EARTH	63.75	68.56	12	11	14	8372	115115	11511
SPRINGTOWN	80.00	87.82	9	8	10	8372	87069	8707
SPRING BRANCH	101.33	105.43	187	180	198	8372	*5766.	*577.
STAMFORD	30.00	37.45	4	3	4	6199	24176	2418
SPUR	19.83	28.49	6	4	5	5745	29874	2987
STEPHENVILLE	45.00	45.32	11	11	14	6199	85236	8524
STRATFORD	22.10	19.16	10	12	15	4975	74625	7462
SULPHUR BLUFF	43.75	45.54	4	4	5	6199	32235	3223
SULPHUR SPRINGS	65.00	67.95	22	21	25	8372	210974	21097
TAHOKA	38.57	34.91	7	8	10	5745	59748	5975
TARKINGTON	100.56	78.88	9	11	14	8372	115115	11511
TEMPLE	48.00	57.34	5	4	5	7632	39686	3969
TEXAS CITY	53.51	274.03	59	12	15	8372	125580	12558
THREE RIVERS	32.37	31.68	8	8	10	5745	59748	5975
TIMPSON	46.09	53.67	11	9	12	6453	75500	7550

TABLE C8. DISTRICT BY DISTRICT ANALYSIS OF BUS REPLACEMENT MODEL (con't)

DISTRICT NAME	ACT. LF	EST. LF	ACT. BUSES	EST. BUSES	BUSES ALLOWED	BUS COST	TOTAL COST	ANNUAL COST
TRENT	16.25	24.86	4	3	4	5745	22405	2241
TULIA	41.00	37.06	12	13	16	6199	100734	10073
TURKEY-QUITAQUE	41.00	33.47	4	5	6	5745	37342	3734
TYLER	96.24	84.43	37	42	46	8372	386786	38679
VALENTINE	60.00	38.19	1	2	3	6199	16117	1612
VALLEY MILLS	33.00	37.75	5	4	5	6199	32235	3223
VALLEY VIEW	35.75	38.81	4	4	5	6199	32235	3223
VAN ALSTYNE	51.25	61.92	4	3	4	7914	30865	3086
VEGA	38.00	33.31	4	5	6	5745	37342	3734
WALLIS	60.50	64.27	2	2	3	7914	20576	2058
WALL	54.44	48.93	9	10	13	6453	80662	8066
WALNUT SPRINGS	22.50	23.38	2	2	3	4975	12935	1293
WARREN	58.54	56.28	13	14	18	7632	133560	13356
WAXAHACHIE	107.92	87.51	12	15	19	8372	156975	15697
WELLINGTON	21.60	26.12	5	4	5	5745	29874	2987
WELLMAN	31.00	41.93	6	4	5	6199	32235	3223
WELLS	45.00	55.68	4	3	4	7632	29765	2976
WESLACO	132.53	91.61	30	43	47	8372	395996	39600
WEST ORANGE-COVE	176.67	163.51	12	13	16	8372	136045	13604
WHEELER	15.20	28.72	5	3	4	5745	22405	2241
WICHITA FALLS	118.04	96.97	27	33	36	8372	303904	30390
WHITE SETTLEMENT	60.00	107.53	5	3	4	8372	32651	3265
WINNSBORO	44.08	49.18	12	11	14	6453	88729	8873
WINTERS	26.75	30.54	8	7	9	5745	52279	5228
WOLFE CITY	42.50	50.16	4	3	4	6453	25167	2517
WOODSON	16.00	26.36	2	1	1	5745	7468	747
WOODVILLE	69.87	66.25	15	16	20	7914	158280	15828
YANTIS	41.00	55.40	4	3	4	7632	29765	2976
YORKTOWN	30.00	38.57	8	6	8	6199	48352	4835
YSLETA	148.85	194.48	13	10	13	8372	104650	10465
ZAPATA	61.67	44.65	6	8	10	6199	64470	6447
ZAVALLA	35.40	37.65	5	5	6	6199	40293	4029

TOTAL BUS COST FOR SAMPLE = 43572923
TOTAL ANNUAL COST FOR SAMPLE = 4357292

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rivals the municipal transit system in capacity, scope and budget. Despite the importance of the systems themselves, and the hints they might provide for the organization of transportation alternatives to the automobile in areas, particularly rural regions, where alternatives do not presently operate, there is a relative paucity of research on pupil transportation systems. This research is one step toward correcting this deficiency.

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